DOCUMENT RESUME

ED 249 870 HE 017 771

| | |
|---|---|
| AUTHOR | Topencharov, Vladimir |
| TITLE | Higher Education in Bulgaria. |
| INSTITUTION | United Nations Educational, Scientific, and Cultural Organization, Bucharest (Romania). European Centre for Higher Education. |
| REPORT NO | ISBN-92-3-102185-0 |
| PUB DATE | 83 |
| NOTE | 117p. |
| AVAILABLE FROM | European Centre for Higher Education, UNESCO-CEPES, 39, Stirbei Voda St., R-70732, Bucharest, Romania. |
| PUB TYPE | Reports - Descriptive (141) |
| EDRS PRICE | MF01/PC05 Plus Postage. |
| DESCRIPTORS | College Administration; College Admission; College Curriculum; *College Faculty; College Libraries; *College Students; Degrees (Academic); Educational History; Enrollment Trends; *Foreign Countries; Foreign Students; *Higher Education; Research; Researchers; School Organization; Study Abroad |
| IDENTIFIERS | *Bulgaria |

ABSTRACT

Higher education in Bulgaria is discussed. The following topics are considered: the history of Bulgarian higher education; structure, content, and functioning of higher education; higher education organization and administration; nonuniversity higher education; other forms of higher education; fields of study; curriculum; educational process and assessment of knowledge; probation service and practice; diplomas and degrees; teaching staff; college admission; job assignments for graduates; social support services provided for students; foreign students; postgraduate training; the role of research; university libraries; international cooperation in higher education; and future prospects and reform of higher education. Data are included on: total population in Bulgaria in 1979; student enrollments and development of institutions during 1939-1980; number of research workers and teaching personnel; distribution of institutions, academic staff, and students in 1971; regular and nonpermanent academic staff, 1980-1981; teacher-student ratios, 1977-1978; number of students studying abroad; number of students receiving scholarships; and number of foreign students, 1980-1981. A list of higher education institutions is included. (SW)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED249870

MONOGRAPHS ON HIGHER EDUCATION

# Higher Education in Bulgaria

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

CEPES

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

unesco
CEPES

EUROPEAN CENTRE FOR HIGHER EDUCATION

CEPES is the acronym for CENTRE EUROPEEN POUR L'ENSEIGNEMENT SUPERIEUR (European Centre for Higher Education). It is an integral part of the UNESCO Secretariat, with headquarters in Bucharest, Romania.

The Centre was created in 1972 to contribute to the development of higher education in the 37 Member States of the Europe Region (including Canada, USA and Israel), by promoting international cooperation in this field.

unesco

CEPES

CEPES works in three main domains: information, communication and co-operation:

– it gathers, processes and disseminates information in different forms (the quarterly journal *Higher Education in Europe*, studies and monographs on national systems of higher education, and other specific topics);

– it organizes meetings, seminars and symposia and initiates or collaborates in joint studies on contemporary problems of higher education;

– it maintains relations with various organizations and institutions, both national and international, governmental and non-governmental, which are concerned with higher education.

ISBN 92-3-102185-0
UNESCO 1983
©

This monograph has been printed with the support of the Ministry of National Education of the People's Republic of Bulgaria.

UNESCO

# HIGHER EDUCATION IN BULGARIA

by Vladimir Topenscharov

CEPES
Bucharest 1983

4

## *PREFACE*

*This volume on Bulgarian higher education is another addition to our series of monographs on national systems of higher education.*

*It will be of particular interest to the reader because this country is presently undergoing a profound reform of higher education linking it more effectively to the other spheres of education and also to industry and research.*

*Although Bulgarian higher education has very long traditions, it really only took off after the events following the Second World War, when it was given considerable importance within the context of reconstruction and development of the country as a whole. Numerous institutions and faculties were built, and large numbers of young people from all walks of life gained access to higher education.*

*In the course of structuring a new system of higher education, innovative measures were taken such as the extensive use of distance education, extra-mural courses, in-service training, post-experience courses, establishment of short-cycle courses, etc. It is in light of these innovations that the present reform was undertaken in such a way as to make traditional higher education more responsive to the needs of change and development.*

*We are very much indebted to the Bulgarian Ministry of Education for having identified a scholar to undertake the task at hand and for having agreed to respect the framework of the CEPES monograph series, particularly with regard to the limited number of pages and list of items covered.*

*Our thanks therefore go to Professor Dr. Vladimir Topencharov of Bulgaria for having accomplished such a difficult task.*

*We would also like to thank the Bulgarian Ministry of Education for the very important support which it extended to us when it agreed to take over the printing of this publication. Such support will permit us to speed up the completion of the series so as to cover the whole European Region as soon as possible.*

*The final editing has been accomplished by Wolfgang Vollmann, with the collaboration of Leland Barrows for linguistic editing.*

**F. EBERHARD**
**DIRECTOR OF CEPES**

## TABLE OF CONTENTS


Preface . . . . . 3
Table of contents . . . . . 5
Introduction . . . . . 7
Chapter 1 Short History of Higher Education in Bulgaria . . . . . 9
Chapter 2 Structure, Content and Functioning of Higher Education . . . . . 17
Chapter 3 Organization and Administration of Higher Education . . . . . 22
Chapter 4 Non-University Higher Education . . . . . 26
Chapter 5 Other Forms of Higher Education . . . . . 30
Chapter 6 Organizational Set-up of Higher Education Institutions . . . . . 33
Chapter 7 Fields of Study . . . . . 38
Chapter 8 Curriculum . . . . . 40
Chapter 9 Educational Process and Assessment of Knowledge . . . . . 42
Chapter 10 Probation Service and Practice . . . . . 45
Chapter 11 Diplomas and Degrees . . . . . 47
Chapter 12 Teaching Staff . . . . . 50
Chapter 13 Admission to Higher Education . . . . . 58
Chapter 14 Job Assignments for Graduates . . . . . 62
Chapter 15 Social Support Services Provided for Students . . . . . 65
Chapter 16 Foreign Students . . . . . 70
Chapter 17 Post-graduate Training in Bulgaria . . . . . 72
Chapter 18 The Role of Research . . . . . 75
Chapter 19 University Libraries . . . . . 79
Chapter 20 International Cooperation in Higher Education . . . . . 81
Chapter 21 Future Prospects and Reform of Higher Education . . . . . 83
Appendixes
Appendix 1 List of Tables and Figures . . . . . 90
Tables and Figures . . . . . 91
Appendix 2 Addresses of Higher Education Institutions in Bulgaria . . . . . 112

## INTRODUCTION

By presenting to the international community of academic specialists an account of the principal achievements, problems and prospects of higher education in Bulgaria we have set ourselves the following basic goals:

(a) to describe the tasks, objectives, and structure of the system of higher education in Bulgaria, including a presentation of the diversified educational and research activities carried out by students; to emphasize the role played by higher education in training specialists for all branches of the national economy, for all spheres of cultural and scientific life, for the needs of the administration, the health services, and of sports; to present the network of institutions of higher education in the country, the system of selection and training, the structure of the various university fields of study and specialities; to give information about the diversity of choices offered for the social and personal fulfilment of university graduates and about the opportunities available to them for further training, for improving their professional qualifications, and for assisted self-education.

(b) To outline the organization, volume and results of research work and of the practice in applied creativity, as carried out in the higher education institutions. Higher education employs nearly one-half of the personnel potential engaged in science and research in the country.

(c) To underline the international function of Bulgarian higher education and the international ties it has developed with the aim of furthering cooperation in the fields of education, science and culture.

(d) To acquaint the reader with the policies of the leading organs of Bulgarian higher education institutions.

Higher education in Bulgaria is a composite part of the social educational system which starts with the nursery schools and kindergartens, continues with general, compulsory secondary education followed by



7

higher education, and winds up with postgraduate studies and continuing education. Within this unified system, higher education holds a position of primary significance both to the country as a whole and to the educational system in particular.

Based on relevant quantitative data and qualitative indicators, this monograph deals primarily with the state of higher education in the year 1980. However, the rapid rates of growth underlying the development of Bulgaria, her rapid advance toward the group of economically developed countries made it necessary to undertake a careful and comprehensive assessment in 1979 of all past achievements and on that basis, to map out the roads for the advance and development of education – higher education included – to meet the requirements of the beginning of the next century. The ideas contained in documents of the Central Committee of the Bulgarian Communist Party furnish the basis for the profound reconstruction of higher education which is already in progress. A number of aspects of the reforms being carried out have direct bearing on specific national characteristics and conditions. Nevertheless, the principal ideas underlying the reconstruction of higher education in Bulgaria may prove to be of interest to a broad circle of specialists in different countries.

In preparing this monograph we have made extensive use of statistical data with specific reference to higher education, and also of numerous partial or special studies on various higher education institutions. One difficulty that had to be overcome was related to the absence of systematic statistical or theoretical investigations and research in the realm of Bulgarian higher education.

We have been assisted in the completion of this work by Dr. Ivan Nikolov of the Research Institute on Higher Education, whose aid in the collection, systematization, and frequently, in the interpretation of the statistical data and other reference material was extremely valuable. The relevant services of the Ministry of Education, particularly of the Council for Higher Education, were likewise very helpful. Appreciation is gratefully acknowledged to all of them.

As an initial attempt to present the past, present and future of Bulgarian higher education, this monograph will undoubtedly suffer from deficiencies, gaps, inaccuracies and insufficiently substantiated appraisals. Nevertheless, we present it to our readers in the hope that it will contribute to a better understanding of higher education in our country.

Prof. Vladimir V. Topencharov

CHAPTER 1

# SHORT HISTORY OF HIGHER EDUCATION IN BULGARIA

## 1. 1. BULGARIA – BRIEF INFORMATION

The People's Republic of Bulgaria is a sovereign state in South-Eastern Europe. With an area of over 110,911 square kilometers, it covers 22 per cent of the Balkan Peninsula. Bulgaria stands out by the great variety of her relief. The Balkan Range divides the country into Northern and Southern Bulgaria. The Sredna Gora Mountains, the Rila and Rhodope Mountains, the mountains of Western Bulgaria, in addition to the vast plains and the remarkable coastal region of the Black Sea, which includes about 70 million square metres of beaches, create favourable opportunities for the development of modern farming yielding a great variety of products for the operation of modern industries and for making Bulgaria one of the most popular countries for tourism in Europe.

Administratively the country is divided into 28 districts and into a total of 264 settlement systems. At the end of 1979 the population of Bulgaria was 8.846.414. The population density was 79,76 people per square kilometer. The distribution according to age, as given in Table 1 shows a relatively propitious structure in terms of age and sex.

Consequently, Bulgarian education at all its stages, higher education included, has been developing under relatively favourable demographic conditions, free from conflicts, which enabled the setting up of an evenly distributed network of educational institutions.

Bulgaria is a socialist country. The all-round characteristic of her social system is presented in the Constitution of the People's Republic of Bulgaria which was adopted on May 16th, 1971. Its economic system is based on the public ownership of the basic means of production. The

state directs the national economy and the other fields of public life on the basis of unified plans for social and economic development, the fundamental object being the further satisfaction of the growing needs of its citizens. The country's Eighth Five-Year Plan (1981-1985) is being successfully implemented.

## 1. 2. THE ORIGINS OF BULGARIAN HIGHER EDUCATION

The history of Bulgarian higher education is part of the general educational history of Bulgaria – one of the longest in Europe. It is closely linked to the history of the Bulgarian people, society and state. The entire national history of Bulgaria finds its reflection in the history of its system of education.

The forerunner of higher education in contemporary Bulgaria was the State High School located in the capital city of Preslav, set up by King Simeon (893-927) on the model of the famous Magnaura Palace School in Constantinople. The creation of this institution was part of a general educational process which was leading to the rapid spread of literacy and general enlightenment in Medieval Bulgaria. It played a very significant role in the consolidation of the state which was going through a process of all-embracing upsurge. The achievements in the realm of education were a direct reflection on the work of Cyril and Methodius, two preeminent figures of progressive thinking during the 9th Century.

At the end of the 9th and the beginning of the 10th centuries, education in Bulgaria took a leap forward that was altogether remarkable for the period. Several major centres of education, including those in Preslav and Ohrid, trained thousands of educated people for the needs of the young state and of its Slavonic Christian Church. The Preslav School played an important part in the overall advance of the country. Being itself the offspring of the Golden Age of Bulgarian culture, it was also an active participant, through the people it trained and educated, in the country's flowering during that Golden Age.

In a very real sense, the Preslav School may be regarded as one of the first forerunners of the Renaissance University in Europe.

This first institution of general education found its natural and direct continuation in what was known as the Turnovo School during the Second Bulgarian Kingdom (13th and 14th centuries). It perished together with the Medieval Bulgarian state, as a result of the Ottoman conquest.

The Preslav and Turnovo Schools are of enormous historical significance to the development of the Bulgarian nation. They trained thousands of men of letters, and it is through them that writing developed into



10

literature. They set the pattern for the initial traditions in Bulgarian cultural life.

The following five centuries of foreign domination reduced to oblivion these precious steps taken toward higher learning in one of the most advanced countries of Medieval Europe. But it did not extinguish the latent sparks of knowledge, the traditions of the Golden Age, or hope for the future.

## 1. 3. HIGHER EDUCATION IN BULGARIA BEFORE 1945

Higher education in the modern sense was instituted only after the country's liberation from Ottoman rule in 1878. Despite its great popularity, education and enlightenment prior to the liberation had not gone far beyond spreading literacy among the people. No doubt there were also efforts to obtain more advanced education, mainly by Bulgarians who went to Russia. This development was important and would yield excellent results later on. Nevertheless, these early achievements were far from insignificant. The dissemination of literacy was in full swing. National liberation found Bulgaria with over 25 per cent of its population literate even though only several hundred Bulgarians had obtained secondary schooling and far fewer higher education.

The existing level of education and the popular upsurge during the first decade after 1878 made possible the rapid development of modern primary and secondary education in the country. The poor and inconsolidated state that had barely attained its independence was one of the first countries in Europe to introduce compulsory primary education in 1883.

The Higher Pedagogical Course at the Sofia State Classical Secondary School, with a Department of History and Philology that opened on October 1, 1888 was actually a university faculty which offered courses in philosophy as well as pedagogy, history and Slavonic philology. The Higher Pedagogical course was elevated to the rank of a Higher School on January 1, 1889. The number of students attending it and of its graduates grew slowly but steadily.

On January 23, 1904 the Higher School which had already attained its consolidation with a lecturing staff and with educational publications and documentation was given the name of Bulgarian University first named after the 'Brothers Evlogi and Hristo Georgievs of Karlovo'. Later on January 4, 1905 it was re-named as the Bulgarian University 'Saint Kliment of Ohrid'.

The changes in rank and name were not formal acts; they reflected



11

the road that had been travelled. It involved the consecutive opening of the Department of Physics and Mathematics (1889-1890), the Law Faculty (1892), the Medical Faculty (1917), the Faculty of Agronomy (1921), the Theological Faculty (1923) and the Faculty of Veterinary Medicine (1924). The relevant figures are indicative of certain important qualitative processes: as early as the end of the 19th Century faculties and departments had been set up in order to train competent teachers for the secondary schools and trained personnel for the country's administration. One should also mention one of the important elements underlying the democratic nature of Bulgarian higher education: the access of women to universities.

Specialized institutes for higher economic education – a vital necessity for the country's economy and administration- were developing parallel to the University. A 'Balkan-Near-East Institute for Political Sciences' was set up in Sofia in 1920 as a private institution of higher education which in 1924 became the 'Free University for Political and Economic Sciences'. It was taken over by the state in 1940 as a 'State Higher School for Financial and Administrative Sciences'. Higher Schools of Commerce were opened in Varna in 1921 and in Svishtov in 1936. As a result the country was rapidly provided with the economists it needed, a process stimulated by the development of economy under the impact of foreign competition.

For many years Bulgarian engineers had to be trained abroad, mainly in Czechoslovakia, Germany, Austria, France and Belgium. Their number was small since Bulgarian industry, weak and lagging in technology, did not offer much scope for the work of engineers. The number of people engaged in industry amounted to only 6 per cent of the active population in 1944, and only 0,1 per cent of them were high school graduates.

Nevertheless, the requirements for transport, communications, construction and the prospects for the development of light industry including food processing, brought forward the problem of training national engineering personnel on a broader scale. The first higher school of technology was opened in Sofia in 1941, with departments in civil engineering and in land-surveying. It admitted not more than 100 students a year. Higher technical education barely advanced in pre-revolutionary Bulgaria.

The quantitative and qualitative (structural) indicators relevant to Bulgarian higher education prior to the revolution of 1944 are deplorable. Conditions in the realm of higher education were simply a reflection, along general lines, of the entire state of education. About 22 per cent of the country's population was illiterate in 1939; the 7-year compulsory

general education provided for by the progressive Law on Education of 1922 had resulted in an actual literacy rate of about 60 per cent. Secondary education was obtained by less than 20 per cent of the young people eligible for it. These educational indicators reflected the depressing picture of the social and economic realities of the country.

In 1939 Bulgaria had 5 institutions of higher education, with 7 faculties, a total of 10.169 students and a teaching staff of 453. These figures amounted to approximately 18 university students per 10.000 of the population, and a 1 to 22,4 staff-student ratio. These indicators may have been honourable for a country that had gained its independence only 60 years earlier and whose higher education system was only 50 years old, but they were nevertheless among the lowest in Europe at that time.

The overall number of university trained specialists was less than 20.000, i.e. one per 275 people. Although the problem of literacy had been tackled quite successfully and Bulgaria was relatively well situated in this respect even long before the Second World War, secondary education and in particular, higher education lagged threateningly behind average European standards. Bulgarian higher education continued to develop during the war (1940-1944). Both the number of students and teachers rose almost twofold in 5 years. There was also a slight increase in the number of institutions of higher education (Table 4). A certain advance was scored in the standards of research workers and of the teaching personnel (Table 5). However, these developments brought no essential changes in the overall pattern. Higher education was still lagging without any clear prospects for development.

## 1. 4. HIGHER EDUCATION AFTER THE SECOND WORLD WAR

After the popular victory of September 9, 1944 the number of higher education institutions in the country rose to seven (Table 4). The number of students increased sharply, and during the first postwar academic year-1944-1945, it rose to the impressive figure of 26.412 (Table 3). The teaching personnel knew a parallel increase: from 453 during the 1939-1940 academic year the number rose to 803 for the 1944-1945 year (Table 5). The educational programme of the *Fatherland Front*, published in September 1944, began to be successfully implemented. Young people, who had been victims of fascist terror, war veterans, and children of workers and poor farmers were admitted to the universities. The democratic process of renovation also embraced the institutions of higher education, including their staff and students.

The beginning of the 1950's marked a period of great expansion for higher education in Bulgaria. The number of its institutions rose first to 13, then to 20, with 33 faculties (Table 4) and over 100 specialities. Following a brief decline, the number of students stabilized at about 40.000 (Table 3). A number of important laws were passed leading to the centralized planned management of higher education.

The principal characteristics of the qualitative changes that took place during this period are the following:

a. Bulgarian higher education adopted the principle of selection, i.e. admission on the basis of competitive entrance examinations combined with the cumulative grade averages of certain secondary school subjects chosen according to the candidates' choices of specialization. This new procedure created favourable conditions for equalizing the initial level of the undergraduates, thus speeding up their training.

b. The principle of relatively narrow specialization was adopted in conformity with the practice prevailing in other countries, particularly the USSR and the USA. It is characteristic of such periods in the development of individual countries in which there is a particularly great need for university trained specialists.

c. The organization of the educational process was considerably improved by the introduction of strict requirements and fixed schedules for taking examinations, compulsory attendance and the strict observance of the weekly and annual time-tables. Subject matter to be taught was divided into smaller courses with a corresponding increase in the number of examinations.

d. The introduction of obligatory assignments intended to prepare graduating specialists to be able to meet certain imperative needs of social practice. This is particularly the situation in the cases of physicians, engineers, agronomists and teachers of certain subjects.

e. The adoption of a new approach in the institutions of higher education, to the formation and promotion of scientists and teaching staff with particular reference to the mechanisms applicable for acquiring scientific degrees. In 1950 centralized requirements were introduced for awarding academic degrees by setting up a *Higher Commission for the Certification of Diplomas*. This state body exercises control over the activities of those higher education institutions which have the right to confer scientific degrees. The new system has resulted in a notable rise in academic standards and in the requirements for obtaining degrees.

The process of socialist reconstruction of higher education carried out during the 1945-1955 decade was part of the process of socialist reconstruction in all fields of the social, economic, political, and cultural

life of Bulgaria.

## 1. 5. HIGHER EDUCATION AFTER 1955

The April 1956 Plenary Meeting of the Central Committee of the Bulgarian Communist Party was of particular significance to the further development of higher education.

It was followed by a substantial change in attitudes toward highly trained specialists, matched by an improved social and psychological climate that led to growing confidence in them, and a greater realization of the need for their opinions and research activities.

Gradual but consistent and precisely oriented changes were carried out in the content of instruction. Essentially the orientation was aimed at new phenomena, new technologies, and the most promising trends in the progress of science and technology, at the cultivation of creative and critical thinking and at higher efficiency.

Certain changes were also introduced into the structure of the university specialities so as to link them more closely to the prospects of the country's social and economic development. The Law on Closer Ties between School and Life, passed in 1959, which provided for the further development of education was reflected in the all – round activities of the institutions of higher education.

The principles endorsed by the 1956 Plenary Meeting had a particularly propitious effect on the growth of the personnel engaged in higher education. Pertinent figures (Table 5) show clearly how, within approximately one decade, the number of scientists and teaching personnel employed in higher education increased twofold: from 3.026 during the 1956-1957 academic year to 5.905 for the year 1965-66. In absolute figures, the number of professors and associate-professors also showed a rapid increase, but the high standards imposed for awarding these titles did not allow for an increase in their relative number. The staff-student-ratio also experienced a marked improvement: from 1 to 17,5 during 1956-1957, to 1 to less than 15 during the 1965-1966 academic year.

The progressive accumulations taking place in higher education and in the entire society between 1956 and the beginning of the seventies resulted in the reforms worked out in 1969 and applied during the 1973-1974 academic year, which affected the first year of study of the undergraduates. The changes introduced were considerable.

The management of higher education was reorganized by the setting up of a collective state and social organ – the *Council on Higher Education*. The structure of norms relevant to the operation of the institutions of

higher education was substantially improved. A new list of specialities was approved leading to the elaboration of new curricula and syllabi in practically all university disciplines. A new organization of the process of education was introduced which combined the relative independence enjoyed by students in the development of their creative talents with a controlled pattern of work (attendance checks, organization of training, required knowledge, strict scheduling of the educational process and of examination sessions, etc.). All these measures had a favourable effect on the quality of education and made it possible to control and guide the already large body of students (Table 3).



16

CHAPTER 2

## STRUCTURE, CONTENT AND FUNCTIONING OF HIGHER EDUCATION

This chapter provides information about the state of higher education around the year 1980. Many of the data provided are approximate and certain conditions are in a process of change. No implication is intended that the statistics and documents are inaccurate. They do, however, indicate that our education system is a living, developing and active organism.

The Bulgarian definition of the concept 'higher education' is, in principle, identical with that given in UNESCO's International Classification. It is the highest level in the large-scale organization of the educational system. Students are admitted to it after 11 to 13 years of schooling which is expected to have been successfully concluded by the award of a final document (diploma).

The average age at which young people in Bulgaria enter institutions of higher education is 18-19 years. It is slightly higher for men, because they are obliged to have completed their compulsory military service beforehand. Exceptions are made for persons exempted from military service for reasons of health, as well as for those who have completed their secondary education before conscription age.

There is yet another type of education in Bulgaria which is similar to higher education from the point of view of age and conditions for admission to it. It requires a shorter period of training and a lower level of knowledge, as well as skills to be obtained. It has been both conventionally and officially called 'semi-higher education'. We have chosen to discuss the problems of this type of education with considerably



17

less detail than in our discussion of higher education for the following two reasons:

a. The development of this type of education has reached an end. It will gradually be transformed in two directions: one part of it will fuse with the normal system of higher education, while the other will fuse with the system of secondary special vocational training.

b. Quantitatively and qualitatively, and also as regards its objectives, structure, content and specific characteristics, it is of secondary interest to the international reader.

## 2. 1. GENERAL INFORMATION ABOUT THE EDUCATIONAL SYSTEM OF BULGARIA

As we have already indicated, higher education is the final stage of the comprehensive educational system of our country. We would therefore like to offer some basic information about the system as a whole.

Bulgaria has a unified educational system. It embraces the nursery schools and kindergartens, the unified schools (primary and secondary), the technical colleges, semi-higher education and higher education.

The underlying principles of the unified structure and administration of the educational system are the following:

a. *Universality*, obligatory (up to an age-limit fixed by the Constitution), and democratic at all stages of organization and management and at all levels.

b. *Unity in the system of education:* the consecutive levels of education are interrelated and conditioned upon one another – from the points of view of organization, content and method. The system is centralized as regards administration and the assignment of textbooks and other aids. Upon graduation students receive diplomas that are valid nationally and are internationally recognized in accordance with existing international agreements.

c. *Public character of education:* the educational system is a function of the state. It is financed through the national budget and its management is assured on a state-public basis by specialized central organs and elected local organs. Responsible state bodies provide the system with the requisite scientific and teaching personnel as well as with other aids and funds. There are no private educational institutions in Bulgaria.

d. *Secular character of education:* religious communities do not take part in the unified national system of education.

e. *Equality of rights* (de jure and de facto) with regard to sex, nationality and creed in securing access to educational qualifications.



18

Education in Bulgaria consists of several consecutive levels which are linked to one another in their organization, method and content.

The structure of Bulgarian education is presented graphically by means of the diagram in Fig. 1.

## 2. 2. FUNCTIONS OF THE EDUCATIONAL SYSTEM

The individual systems perform different special functions and are called upon to solve different problems in the development of the personalities of young citizens.

a. *Pre-school education.* Pre-school education plays an essential role in preparing children aged 6 years for entering the first grade of the elementary schools. A total of 395.215 children, i.e. almost three-quarters of all children of that age were attending the kindergartens of the country in 1979.

b. *Compulsory education.* It comprises an 8-year course of education for all children aged 7 to 15 years. It is divided conventionally into two stages: the first to the third grades makes up initial or elementary school; the 4th to 8th grade is called primary school. During the first stage (grades 1 to 3) pupils are taught the basic skills of general education (reading, writing and arithmetic). The second stage (4th to 8th grades) involves the systematic and oriented development of the fundamental training and upbringing acquired by the pupils during the first stage.

The pupils acquire the fundamentals of unified polytechnical training in the individual fields of science, technology and the arts. There are special boarding schools, financed entirely by the state budget, for children with mental or physical handicaps (deaf, dumb, blind or crippled) or predisposed to certain diseases. Special treatments, under the guidance of trained medical personnel, are organized in these schools in addition to the processes of normal education. There are also special schools for children with outstanding talents (fine arts, music, ballet, etc.) which help them develop their talents.

c. *Secondary education.* This stage of education comprises three different types of secondary schools which, according to the law, are of equal status:

1) The *general-education labour-polytechnical school* is the main form of secondary education, leading up to the 11th grade. Students are admitted to such secondary polytechnical schools on the basis of their earlier school records, i.e. their grades during the 8-year period of compulsory education. All students who pass the school-leaving examinations at the end of the 11th grade obtain certificates for completed secon-



19

dary education. This certificate entitles them to take part in the entrance examinations for higher education institutions, and also to take jobs in a great variety of administrative, economic, cultural and other organizations.

2) The *Technical Colleges* provide training to specialists with secondary education who wish to work in industry, in agriculture, in construction, in transport, in the health services and in other branches of the national economy. The period of regular training in the technical colleges is 4 years for those admitted immediately after completing the 8-year course of compulsory primary education, or 2 years for those who want to graduate from a particular technical college after completing the full course of ordinary secondary education. The duration of the extramural or evening courses of the technical colleges is 5 years.

3) *Secondary Vocational-Technical Schools* offer a 3-year course following the 8-year period of compulsory school training. They offer a curriculum of general theoretical, general technical, and special subjects in accordance with the nature of the specializations in addition to considerable amounts of practical training. Graduates of these schools are entitled to take part in the competitive entrance examinations for higher education institutions or for technical colleges.

The so-called *vocational-technical schools*, are also operating, as well as a system of *courses for raising the general-education standards of workers* engaged in industry and agriculture. These schools offer two-year courses, but current trends call for them to be discontinued during the next few years and to re-emerge as secondary vocational-technical schools.

d. *Higher education.* This is the level of education starting after the completion of secondary education, normally at age 18 or 19 and lasting 4 to 5 years.

## 2. 3. GENERAL CHARACTERISTICS OF HIGHER EDUCATION TODAY

Essentially, higher education is an organized, collective and centrally planned system for the training of highly qualified specialists for all branches of national life.

The Bulgarian system of higher education has the following tasks:

a. Organization of training (through regular, extramural or evening courses) of specialists meeting both the requirements for social practice in Bulgaria and international standards of higher education.

b. Raising the levels of competence of university graduates who need to update their training, as well as re-training specialists in accordance with new developments in their fields.

c. Further education of competent scientists (preparation of candidacies and doctorates of science).

d. Extensive research which is closely linked both to the instruction of university students and to fields usually corresponding to the profiles of the sponsoring institutions of higher education.

e. Collection, processing, classification, storage and dissemination of information about the achievements of science, industry, culture and social life; study and systematization of experience in other countries.

CHAPTER 3

## ORGANIZATION AND ADMINISTRATION OF HIGHER EDUCATION

The Ministry of Education is the chief administrative body in charge of education. It provides general and specialized methodological guidance to all higher education institutions in the country, regardless of their departmental subordination.

The unified *Law on Higher Education*, the unified normative structure for the guidance and control of education, together with long-standing traditions ensure the cohesion and co-ordination of work in this system, even though the individual educational institutions may be subordinated to different ministries and departments.

The Ministry of Public Health is in charge of the Medical Academy and its branches. It is responsible for the financing of the Academy, for its supply of material and equipment, for planning the number of students to be admitted every year, and for the supervision of the educational process. The Ministry is also the sole employer of the graduates of the Medical Academy.

The National Agrarian and Industrial Union (a central body comparable to a Ministry of Agriculture) is in charge of the higher education institutions dealing with agriculture and veterinary medicine. It provides for the employment of the specialists graduating from these institutions.

The *Committee for Culture* is in charge of the country's artistic higher education establishments (the State Conservatory, the Drama Academy, the Academy of Fine Arts). It provides contacts between these establishments and the various artistic circles in the country and provides guidance with regard to the content of courses in these institutions and the teaching

methods employed.

All remaining institutions are under the administrative and methodological guidance of the Ministry of Education. The diagram of the principal management bodies is given in Fig. 2.

In 1980, after changes were made in the statutes, the Ministry of Education turned into a central department operating on a state and social basis, i.e. with elected collective bodies both in the central administration and at the local level.

3. 1. The highest organ of the Ministry of Education is the *Supreme Council of Education.* This body is elected by the Congress of Education. It coordinates all educational activities in the country. Its instructions are compulsory for all ministries, central departments, people's councils, etc.

The *Supreme Council of Education* examines the fundamental problems of education, making decisions of principle and indicating the measures for their implementation. It elects a *Bureau of the Council,* which also acts as an Advisory Board of the Ministry of Education. The Bureau is the highest collective executive and administrative body of the Ministry of Education.

3. 2. *The Council for Higher Education* is composed of representatives of the higher education institutions of the country (the rectors, some of the vice-rectors, heads of university departments, and professors), of specialists in higher education, of top executives of departments employing specialists trained in the institutions of higher education, and representatives of economic organizations.

The *Council for Higher Education* examines major problems of higher education at its plenary sessions held 3 to 4 times a year. In recent years the *Council* has discussed such matters as the list of fields of study, the level and standards of the process of instruction and education, the structure and content of that process, the structure and content of instruction, the problems of foreign students, and the ways and means of selecting university students and research work to be undertaken.

The *Council for Higher Education* elects a Bureau which is headed by a President and one Deputy-President. The President is also Deputy-Minister of Education and member of the *Supreme Council of Education.* Members of the Bureau include rectors of higher education institutions and other high-ranking officials. The Bureau is the executive body of the *Council for Higher Education.* (Fig. 2).

The following domains are within the competence of the *Council for Higher Education* and of its subdivisions and offices:

a. The planning of yearly enrolments and the formulation of five-year enrolment proportions; the distribution of students in educational

institutions and fields of study; these activities are undertaken jointly with the Planning Committee and with the respective ministries and departments.

b. Personnel problems related to the size of the staff; decisions to open competitions for the recruitment of new associate professors and professors in collaboration with the *State Committee for Science and Technical Progress;* distribution of personnel among institutions; orientation of the research potential in the universities; decisions regarding the auxiliary, technical and management personnel.

c. Finance: distribution of funds; determination of the average cost per university student according to specializations and educational institutions; control over the implementation of the financial and foreign-exchange plan. These tasks are accomplished jointly with and under the control of the Ministry of Finance.

d. Planning and financing of research in higher education institutions; endorsement of research themes proposed by the institutions and financed through the state plan; central distribution of the resources allocated for research work; supply of the necessary materials, equipment and scientific apparatus.

e. Orientation and organization of research in the field of education; the principal topics studied are: the needs of higher education; social processes within groups of undergraduates and staff members; relations between higher education and other stages of education, between higher education and material production, between the former and other spheres of life, and the study of the organization and economy of higher education.

f. Control over higher education investment policy (construction of new buildings for educational institutions, provision of equipment for them, etc.).

The *Council for Higher Education* is primarily a centre for the coordination of methods. It elaborates various normative documents and instructions. It does not infringe upon the competences of the higher education institutions, nor does it intervene directly in their management. It does not set any restrictions on their activities. Its task is first and foremost to unify the conditions, the criteria and the systems of operation of the country's institutions of higher education.

3. 3. *The Research Institute on Higher Education* plans, coordinates, organizes, and carries out research on higher education as a subsystem of the overall education system. It analyzes experiences in foreign countries and investigates tendencies in the development of higher education relating



ES 24

it to the development of society as a whole. The Institute cooperates with the subdivisions of the *Council for Higher Education*, with specialized units in the higher education institutions and with staff members interested in higher education as a field of research. The institute is one of the group of institutes within the Ministry of Education specializing in this and other related fields.

3. 4. The theoretical, applicative and reference materials elaborated in the higher education institutions, as well as articles and papers on relevant experiences in the country and abroad, are published in the revue 'Questions of Higher Education'. This is an organ of the *Council for Higher Education*, founded in 1963, and an important forum for the development of creative thinking in this field.



25

## CHAPTER 4

## NON-UNIVERSITY HIGHER EDUCATION

There are two types of institutions for vocational non-university education which are designed for training specialists after completion of the full course of secondary education. One type which is clearly beyond the scope of this monograph, is of a secondary school variety offering specialized vocational training courses as a form of continuing education. The second type, which is known as semi-higher education, because it is clearly situated at a post-secondary but pre-univeristy level, consists of training centres for young people who have completed secondary school. It is a traditional level of education in Bulgaria. It marked an important step in the training of specialists in our country before higher education could fully develop. Established before the Second World War, semi-higher education institutions played essential role in the democratization of education and reached its highest stage of development during the sixties.

There are now 24 semi-higher educational institutions in 18 towns. In 1980 they were attended by 14.024 students, 10.455 of whom were women. Most of them were trained as kindergarten, elementary-school, and primary-school teachers, as well as instructors in what is known as production practice in secondary schools. There is a considerable number of semi-higher institutions for training of nurses. The latter institutions underwent a thorough process of reorganization and concentration during the 1981-82 academic year. We have no accurate information about them, and they have not been included in the data given above. There are three semi-higher institutions for training cultural workers, including administrative and other kinds of officers who work in culture clubs and other cultu-



126

rail establishments. Semi-higher education establishments also provide training for library staff, and tourist personnel (information clerks, hotel administrators, guides, etc.). They also train technical communications specialists. One of these establishments specializes in rail transportation.

The country's semi-higher education institutions have a material base which is fully comparable to that of university-type higher education institutions. For instance, there is an average of 3,6 $m^2$ of indoor area provided per student in the nation's semi-higher education institutions as compared to 5,2 $m^2$ in the university-type higher education. However, when one considers that university education involves a greater number of hours of academic attendance a week and fewer hours on site and on campus, the reduction shows that the area available per student in the system of semi-higher education is equal to that provided for in higher education.

There are 1.177 staff members employed in the country's semi-higher education institutions, 715 of whom are women. In addition, an essential role has been assigned to 613 supplementary lecturers (239 of whom are women) who are usually selected from among the most eminent teachers, inspectors in the departments of education, physicians, and also among the university's staff. It has been calculated that there is an average of 12 students per regular lecturer in the system of semi-higher education. If we add the extra teaching staff paid by the hour and consider their involvement as represented by a coefficient of 0,3 on the average, then the ratio becomes about 10 students per staff number. In the case of university higher education the figures are 8 students, or 7,6 students per staff member. However, when the reduction coefficient indicated above is applied, we can see that the differences are negligible.

On the other hand, the quality indicators of the research and lecturing-teaching plan in the two types of higher education are hardly comparable. Research work in the semi-higher educational institutions undertaken only exceptionally and largely on the initiative of the individual staff members themselves. Activities in this field are very limited, and the prospects for improvement are not very promising, mainly due to the lack of traditions and of proper scientific guidance. The intention, however, is for this picture to change radically with the transformation of the semi-higher educational institutions into either higher or secondary ones. The scientific potential for research and teaching in university-type higher education and in the country as a whole, makes us confident that the higher education institutions which will come into being will be adequately staffed, on the level of existing higher education institutions in the country.

The content of instruction in semi-higher education is similar in a number of respects to that of university-type institutions.

The differences are minimal in social sciences, foreign-language training, and a few other fields of study. Specialized training is more markedly practical, in view of its strictly vocational aims. However, there are essential differences in the fundamental training of future specialists. In the semi-higher education institutions it is limited to the immediate requirements of specific fields. The result is a shorter period of time during which the future specialists must adapt to rapidly changing working conditions, a situation which increases the need for further vocational and creative development.

The relevance of the semi-higher education institutions to the training of specialists in the country can be seen from their relative share in the teaching profession. There were 129.542 teachers in the country on September 1st, 1980, of which 71.479 (55,2 per cent) had semi-higher specialized training. Thus the semi-higher education institutions of the country had provided over one-half of the staff of the schools. At the same time, there were 31.221 university-trained teachers-that is 24 per cent of the total. Note should be made of the fact that the percentage of the latter has risen noticeably only during the last decade. The percentage of the health officers and nurses is similar. There are 26.359 physicians, dentists and pharmacists today, as against 12.279 health officers with semi-higher education qualifications and 37.182 nurses. These data are indicative enough. The current trend is for these proportions to undergo a significant change, with the intermediate level gradually merging into the higher one.

One innovation in non-university higher education in Bulgaria is the setting up of technical colleges which admit students with full secondary education. Having begun in 1970 as an experiment, these technical colleges did not grow in number for quite a long time. However, their educational capacities and the employment of their graduates have been thoroughly studied.

In light of these new ideas, the higher education institutions of the non-university type which admit secondary-school graduates only, will develop as one of the basic forms for the training of this type of specialists. An essential aspect is the link it provides with both the secondary school (ensuring the necessary continuity) and with the university-type of education. Current provisions are for the curricula and syllabi of these educational institutions to be geared to the system of higher education, i.e. to make the non-university type of higher education a part of the unified higher education system in Bulgaria. This will permit each person who has begun studying in such an institution to continue his studies at a higher level, without any administrative complications.

The status of teachers having graduated from semi-higher education



28

institutions, is defined by Enactment No. 2 of the Ministry of Education of 1982. According to its provisions, the local educational councils may help teachers, with lengths of service of over 2 years to continue their studies extramurally in the various higher education institutions.



29

## CHAPTER 5

## OTHER FORMS OF HIGHER EDUCATION

A variety of forms of education has been set up within the system of higher education in Bulgaria, aimed at solving social and personnel problems. Thus it is possible to obtain higher education degrees without attending regular university courses. Such forms are intended primarily for young workers and employees who lacked the material, family, or psychological conditions and frames of mind for obtaining higher education through the regular procedure described above, and who were not in a position – for personal or various other reasons – to discontinue their work during the normal period required for university studies.

The system of *extramural education* is extensively developed in the country. It is organized by each higher education institution. Its syllabi do not differ from those followed in regular higher education, the main difference being that the curricula do not require regular attendance. At the start of each academic year, extramural students are sent written methodological indications about the work they have to do. They use the textbooks and the other educational aids intended for the regular students, or specially prepared material offering greater detail and presented in such a manner as to be easily assimilated without the aid of teachers.

Extramural students are obliged to report to their respective institutions several times during the academic year for periods lasting between one to two weeks (in accordance with the curriculum and with their individual training schedules), for the purpose of attending special review lectures, of performing certain important laboratory tests or other kinds of work, and of establishing personal contacts with the staff. The number



30

of lectures delivered to the extramural students in the principal subjects is about 30 per cent of those delivered to the regular students.

Widely developed extramural education has had a long and rich development. It is one of the important social regulators of the educational system.

The scope of extramural education has varied throughout the years in terms of enrolment and fields of study. Following an intense expansion during the 1960's when there was a shortage of specialists in the engineering, economic and teaching fields, extramural training today has a more limited scale and performs auxiliary functions in the training of specialists. Extramural students accounted for 25 per cent of the overall number of university students in 1977, but this percentage had dropped to 23 in 1980. Because the tendency is for the percentage to remain slightly above 20, the high percentage of the year 1965 (31 per cent), will remain an important landmark in the development and the history of higher education. The decrease in absolute numbers is still more significant, because the number of new students admitted to higher education has dropped by about 25 per cent compared with 1973, the year in which the largest number of students entered the nation's universities. The number of fields of study in which higher education can be obtained extramurally has also decreased.

At present the relative limitation of extramural education can be accounted for by better vocational orientation in schools, better opportunities for the timely social development of young people, and the stabilization of the number of specialists required in the country. However, extramural education will preserve its role in society as an opportunity for each working person under a certain age to satisfy his or her desire to pursue higher studies.

The system of *evening classes* is a variant of extramural education. This form has developed in university towns and is convenient for people living in the same town or its vicinity. The syllabi are identical to those of the regular courses. Three times a week, for 3 to 5 hours in the evening, the students attend lectures after their working hours. The number of lectures offered is considerably larger than those offered to extramural students, although smaller than for regular students. This is particularly the case with certain subjects, the number of lectures being proportional to the difficulty of a given subject and the possibility for independent study of the material included in the syllabi.

Evening education is difficult and taxing. It has proved to be successful primarily with citizens holding jobs which do not induce mental fatigue or reduce the capacity for intellectual effort after a working day.

Nevertheless and notwithstanding its efficiency and its higher informative standards compared with those of normal extramural education, this form is not very popular and shows no numerical increase. It accounts for only an insignificant percentage of the total number of students in the country. It amounted to 1,5 per cent in 1965, 1,6 per cent in 1977, and 1 per cent in 1980.

There are no plans to increase the number of evening students in the future. This form of extramural training will remain within its present scope.

Students attending extramural or night courses enjoy a number of facilities, privileges and special rights. The state provides transportation, while the enterprises employing the extramural students give them considerable additional paid leave for their examinations, as well as unpaid leave if necessary. This type of study is not viewed as being simply the personal concern of the particular student.

*Modular higher education* is not widespread in Bulgaria. A number of experiments have been made in recent years, but they have been quite restricted. Experimental in scope, they were designed to cover only certain temporary conditions. They involved graduates of the semi-higher pedagogical institutes entitled to teach in the upper grades of the primary schools, who had accumulated sufficient pedagogical experience and wished to improve their scientific and cultural training and educational qualifications. These teachers were offered the possibility of obtaining full university-type education by taking a special extramural course. The special curricula worked out in this case took into account both the basic training and the pedagogical experience gained by them as practicing teachers. Thus it was possible to eliminate a number of subjects from the curriculum and to condense it considerably in view of the already demonstrated professional qualifications of the students.

To create a new type of post-secondary special education, provisions have been made for considerably expanding the system of continuing education. What is intended is to offer full higher education to people who have graduated from a post-secondary 2 year course, and who have a certain professional experience, without their going through the curriculum for regular university courses. These provisions will make it possible to shorten the term of studies and to avoid repetition and unnecessary information.

## CHAPTER 6

# ORGANIZATIONAL SET-UP OF HIGHER EDUCATION INSTITUTIONS

The basic structural unit within the system of higher education is the institution. It is an independent juridical entity, with its own budget, and with its own material, technical and educational structure. Higher education institutions are set up by decision of the Council of Ministers and are administered in accordance with the *Law on Higher Education*.

There are at present 28 institutions of higher education (see list of the names and addresses of institutions of higher education).

## 6. 1. GENERAL ASSEMBLY

The *General Assembly* is the highest body of a given institution. Its members are the professors and associate professors of the respective institution, as well as representatives of the other categories of teaching staff, of post-graduate students, of the undergraduates, of the administrative personnel, and of the auxiliary and technical staff. The *General Assembly* also includes representatives of the industrial, agricultural, and cultural enterprises which provide employment for graduates.

The *General Assembly* deals with issues of instruction and research and convenes at least twice during the academic year. Its basic principles, its rights and duties are laid down in the *Law on Higher Education* and in the *Regulations on the Application of the Law on Higher Education*.

The *General Assembly* elects the members of the *Academic Council*. The *Academic Council* is a collective body which takes decisions by majority vote which are binding on all students, staff members, and executive bodies of the institution.

## 6. 2. ACADEMIC COUNCIL

The number of members of the *Academic Council* cannot exceed 45. Eligible to Council membership are the deans of the faculties, distinguished professors and associate-professors, representatives of the students, of the staff, and of the auxiliary personnel, as well as a number of representatives of central departments which normally employ the graduates and therefore have an interest in the problems and the work involved. The *Academic Council* is elected for a period of 4 years. Its composition is subject to periodic change and renewal, although the regulations envisage no fixed norms to that effect.

The *Academic Council* is usually convened once a month (10-12 times a year) except during vacations. It discusses education and research, appointments and promotions, and material, technical and social questions. The *Academic Council* endorses the curricula and syllabi for all subjects and for all faculties, observing the general indications given by the *Council for Higher Education.*

## 6. 3. RECTOR

The *Academic Council* elects the Rector who in addition to being the President of the *General Assembly* and of the *Academic Council*, represents the higher education institution before higher bodies, other education institutions and foreign partners. He is in charge of all types of activity in the institution. He is responsible for planning the work done by all executive organs, ensuring the implementation of their decisions, and submitting reports on his activities and on the activities of his immediate assistants to the *Academic Council* and the *General Assembly.* The Rector is elected for a period of 4 years. The same person may not hold the office for more than two consecutive mandates. The Rector elected from among the most distinguished professors of the institution in question to hold an office which carries with it high public honours.

## 6. 4. RECTOR'S COUNCIL

The Rector is assisted in his work by the *Rector's Council*, which is a collective consultative body. It includes the Vice-Rectors (2 or 5 in number, depending on the size of the particular institution), the deans of the faculties and heads of other analogous units, one representative of the main social and political organizations in the education institution, and the head of its administrative services.

The *Rector's Council* holds 2 to 4 sessions a month and examines the current affairs of the institution. Although the *Rector's Council* has only consultative functions, its recommendations are binding on the Rector. Differences between the Rector and the *Rector's Council* appear only very rarely in actual practice.

## 6. 5. VICE-RECTOR

In the performance of his duties, the Rector is assisted by the Vice- or Deputy-Rectors, with responsibilities for particular spheres of activity. Each institution has at least one Vice-Rector in charge of the teaching process and one Vice-Rector in charge of research. Larger universities may have Vice-Rectors in charge of educational questions and personnel, of post-graduate studies and of administration proper. The Vice-Rectors are entitled to take decisions on all matters within their competence. Their work is coordinated and guided by the Rector. The Vice-Rectors are elected from among the professors or associate professors with experience in their particular fields. The office of Vice-Rector is not permanent, and one person may not hold the post for more than two consecutive terms.

## 6. 6. FACULTY

The faculty is the basic structural unit within which the education of students is organized. It consists of a group of fields of study in the respective departments or chairs, and of the latter's staff.

The faculty is an autonomous structural unit of an institution. The *General Assembly* of the faculty includes all professors and associate professors from all chairs, representatives of the undergraduates, as well as representatives of various departments or institutions whose activities have a bearing on the faculty's work.

The *General Assembly* of the faculty elects the *Faculty Council.* The latter includes all professors and associate professors, representatives of other categories of academic staff members, and also of other categories of personnel, as is the case with the *Academic Council.* The *Faculty Council* is authorized to make decisions on all matters related to current activities. The Faculty enjoys autonomy within limitations set by the *Academic Council,* the *Law on Higher Education,* and other related regulations. The *Faculty Council,* the meetings of which are chaired by the Dean, is usually convened twice a month. One of the essential tasks of the *Faculty Council* is to appoint new assistants and lecturers. Upon authorization by



35

the *Higher Commission for Diplomas* – an authorization granted to most *Faculty Councils* – it can also appoint associate professors and regular professors for faculty chairs.

The *Faculty Council* elects the Dean of the faculty, who is in charge of the current work of the faculty. He chairs the sessions of the *Faculty Council* and of the *General Assembly of the Faculty*, prepares the plans and the assignments that go with them, takes measures for their implementation, and prepares reports on the activities of the faculty and of its executive bodies. The Dean is an official entrusted with personal authority who is personally responsible for all activities of the faculty.

In his current work the Dean is assisted by a faculty board composed of the assistant deans (2 or 3 in number), by representatives of faculty social organizations, and by the Secretary of the Faculty as its administrative officer. The faculty board, known as the *Dean's Council*, is a consultative body set up to assist the Dean. It is usually convened once a week and makes decisions on current matters, usually routine, staff or student problems.

The current administrative work concerning students and lecturers in the given faculty is prepared, organized and executed by the office of the faculty which is authorized to solve the current administrative problems of students and staff, as well as to handle the correspondence of the faculty.

## 6. 7. CHAIR

The basic organizational unit within the faculty and within the entire higher education institution is the chair or department. A chair consists of a group of lecturers (between 5 and 30) engaged in the same or similar fields of research and teaching. They have common laboratories, they offer similar seminars, etc. The head of the chair is elected by the *Chair Council* for a period of 4 years and can be re-elected to that office without restriction. The *Chair Council*, which includes all professors, associate professors, lecturers, assistant lecturers, tutors and research associates, reaches its decisions by open role and simple majority vote on all matters that are directly related to the activities of the chair.

All educational, research and other activities are, in point of fact, carried out by the chairs through their individual members or through organized teams.

In principle, one chair or department may be functionally related to other chairs in the same or other faculties inside the same higher education



236

institution. This is the case, for example, with the chairs of mathematics and scientific philology in non-specialized faculties, and also with chairs in foreign-language training, physical education, etc.

Although the chair structure may not be the best structure for promoting research and educational activity, it is satisfactory for the time being.

## 6. 8. ADMINISTRATION

All institutions have at their disposal a large and complex auxiliary apparatus of support staff, which include accountants' offices, sections on economic planning and personnel, educational sections, research sections, etc.

The functions of the administrative and economic services are to assist in the educational process and in the research work carried out by staff and students. These services enjoy considerable economic independence, which makes it possible for the research workers and members of staff to be relieved of certain duties-such as the supply of material and equipment, certain technical operations, administrative work connected with the students, etc. The administrative section, on the other hand, has no direct influence on the solution of major methodological, organizational and scientific problems.

## 6. 9. OTHER ORGANIZATIONS

Each of the higher education institutions has its own party, trade-union and youth organizations. These activities are directly geared to the administrative, educational, scientific and cultural life of these institutions. These organizations, headed by the organizations of the Bulgarian Communist Party, offer guidance to public opinion in the institutions of higher education in order to promote cohesion and team work among faculty members, other members of the work staff and students.



837

CHAPTER 7

## FIELDS OF STUDY

The particular fields of study offered to the students by particular departments constitute the fundamental units in the educational process. Each department is differentiated on the basis of its specific intellectual and vocational characteristics. It defines the curriculum (which will be dealt with later on) and the syllabi which determine the nature of the particular field. Graduation is certified by an official document (diploma) which entitles its holder to exercise a particular profession.

The fields of study are determined in accordance with the need for specialists in the various branches of the national economy: social services, culture, public health, and administration. A new field can be created only by decision of the Council of Ministers of Bulgaria. There are 148 fields of study that can be taken up at present by university students.

The offical statistical reports usually refer to fields of study grouped together on the basis of the future employment of the specialists and the educational and research contexts of the instruction offered: engineering and technical fields, economic fields, mathematical and natural science fields, humanitarian sciences, public health fields, etc.

The fields included in higher education reflect a number of characteristic features of Bulgaria. Over half of them are so relatively broad in scope that differentiation within them becomes necessary in view of the character of the future work of the specialists trained. Such fields are subdivided into branches, called specializations.

A specialization, in this sense of the word, is a subdivision of the field of study characterized by several (3 to 6) special subjects. Students usually choose specializations during the last two semesters of their programmes

of study and the specializations which branch off from a particular field of study do not differ very much from one another. The curriculum and the syllabi are devised so as to facilitate interchangeability between graduates of different specializations who have taken up the same fields of study.

A certain amount of dynamism has been achieved in the specializations (and, by way of exception in certain fields which enrol only small numbers of students). In some cases, and depending on the concrete and foreseeable needs of society, some specializations admit no students as beginners for certain academic years when it is not necessary to do so in view of the concrete needs for such specialists.

CHAPTER 8

## CURRICULUM

The curriculum is the basic document involved in the organization of the educational process and in the training of students in a particular field of study.

The curriculum establishes subjects of study in a particular field. The number of classes allocated to each subject is broken down into lectures, tutorials and laboratory work. The curriculum also sets the nature of the final examination to cover the assigned materials. It can be a system of current assessment or simply a pass-fail examination. The curriculum also establishes the structure of the academic year, the number of weeks assigned to classes, to probationary periods, to examination sessions, to practical training, and to vacations.

Typical of the curricula is the sequential principle in the structure of education. The subjects, taken separately, are structured in accordance with their internal logic, thus permitting students to move gradually and with the least difficulty from the pedagogical and learning approaches and patterns of education, typical of secondary education, to techniques appropriate for the higher education training of specialists. In addition to providing for the sequential presentation of knowledge by stressing the vertical-logical connection between subjects studied, the curriculum also provides for horizontal linking among subjects taught at the same time during a particular year of study.

Higher education institutions have a rather high number of classes amounting to 28 or 38 hours per week.

The large number of classes required by these curricula lead to a working week of 55 to 60 hours, according to the calculations made,

including the time necessary for study.

Education specialists in the country are unanimous that the working week exceeds the capacity of the average undergraduate and is not conducive to independent creative development. That is why, one of the key tasks is to reduce this dense working schedule.

The academic year is divided into two terms or semesters, according to the curriculum, of 15 to 17 weeks each. Examinations are taken during special sessions. The number of these sessions varies between two and three for the different institutions in the country. There are between 2 and 6 examinations per session (together with what are known as current assessments and pass-examinations or credit tests). A session lasts up to 4 weeks.

The ratio between lectures and seminars is relatively equal (subject to regulations) for all institutions. An effort is made to strike a balance between lectures and seminars or tutorials in order to ensure the better practical training of students and to replace the largely theoretical nature of instruction with creative elements at all levels. In some cases (e.g. in the field of 'Medicine') practical classes play a considerably larger role than simple lectures.

The curricula also make provisions for activities aimed at the harmonious and multilateral development of undergraduates as creative and fully aware individuals. These students must study a large number of socio-political subjects such as political economy, philosophy, scientific communism, psychology and pedagogy, as well as foreign-languages (Russian and one Western-European language are compulsory). They must also take part in physical education and in sports (special hours are provided in the curriculum and in the weekly programmes so that students can practice sports). Bearing in mind this additional characteristic of the curricula, it appears that the compulsory weekly attendance and the home-work required of Bulgarian students do not differ essentially from that required in most higher educational institutions in the world, particularly in subjects such as engineering, and the natural, mathematical and economic sciences.

The curricula normally offer a number of optional subjects as well. However, such subjects have not been very popular with the students ever though the lists of optional courses are at times quite impressive. The main reason for this lack of popularity must be sought in the students' heavy work load.

CHAPTER 9

## EDUCATIONAL PROCESS AND ASSESSMENT OF KNOWLEDGE

The salient features of the educational process are a high degree of organization as well as strict regulation and control.

The lectures and seminar classes included in the curriculum are obligatory, unless specifically listed as optional. The staff are obliged to check the attendance of the students and to rate their participation and involvement in their work. Students need to have their lecturers report that their work has been satisfactory. The educational process is structured in such a manner as to call for the students' active participation in it.

The process of instruction is combined with continuous assessment of the assimilation of knowledge, the information delivered by the staff, and of the acquisition of creative skills and habits. Various assessment procedures, differing in content and in structure, have been worked out for particular courses and subjects. In order to create more favourable conditions for education, and in order to make assessment an efficient means of assisting and stimulating the independent work done by the students, it is patterned uniformly throughout the entire semester.

Tests covering specific materials are widely administered in Bulgarian institutions. Compulsory practical exercises involve the students in a certain volume of work and a required standard. The results which the students present orally or in writing are duly rated by the staff in charge of the practical exercises. One of the principal forms of assessment is the rating of homework assessments. Papers submitted include creative work in addition to compilation of analytical bibliographies and so on. One of the principal methods of assessment utilized in the country's higher schools of technology is the so-called 'practical assignment' or 'technological



42

individual project', which must be prepared, in part or entirely, according to the curriculum within a fixed term.

Achievement in the educational process is expressed in grades or ratings given at the end of the semester, upon completion of the set of lectures in the particular course or subject. The grade scale runs from a minimum of 2 to a maximum of 6. The minimum grade enabling a student to continue with further higher educational studies is 'satisfactory' i.e. '3'.

The evaluation of student achievement is done through what is known as continuous assessment, through examination grades, or through the so-called 'pass-examinations' or 'course credit tests'. Essentially, and according to the existing regulations, the results of continuous assessment are considered to be equal to the results of examinations.

The examinations are held during examination sessions. Except during these sessions, examinations can be taken only exceptionally with the special permission of the Dean. There are three or four examination sessions, depending on the conditions of the institution of higher education. The principal sessions are those of February and June – after the end of the winter and summer terms respectively. They last between three and four and a half weeks.

The examinations are conducted by the staff, in accordance with established procedures and the nature of the subject in question. In accordance with the Law on Higher Education and by the Regulations concerned with its application, examinations are strictly individual even if held in group sessions. Thus, each student is examined individually, and, for the most part, on topics that he has been able to prepare (1 to 2 hours) in advance. The days on which the individual examinations are to be held are arranged in advance by agreement of students and staff acting through an organizational unit which is the class. A class corresponds to a particular field of study or part of one, and is usually composed of between 18 to 24 students.

According to the curriculum, there are provisions for holding final tests which are called 'pass-examinations' or 'course credit tests' on certain subjects. The characteristic of these tests is that they involve no grading, the result being a simple 'pass' or 'fail'. In case of failure the student is obliged to repeat the test. Course credit tests are not given during the examination sessions but immediately after the term.

A student who has failed to take or to pass a given examination or credit test has the right to take it again during a make-up examination session. Such sessions are usually organized after the regular examination sessions and last 10 days. Some higher educational institutions have continued the traditional function of holding the supplementary examina-

tion session during the first half of September. Students are not allowed to take a particular examination more than twice except in the case of certain institutions which may permit a third attempt in special cases.

Students who fail to take all their examinations by October of the following academic year, who do not score more than 3, and who fail to pass all their credit tests, repeat the academic year or are expelled from their institution. Repeaters are obliged to work not less than 8 months during the particular year in an enterprise and, in the meantime, to retake the examinations in which they had received failing marks.

Repeating a year on account of poor performance is allowed only once during the entire course of academic study. A student who has failed to take his examinations during the year he repeats, is expelled from his institution. The Rector of each institution has the right to reinstate undergraduates expelled on account of poor performance, though not earlier than one year nor later than three years after the expulsion, provided the former student can submit good references from his work place.

After an expelled student has passed another entrance examination, or after his rights and student status have been restored by decision of the Rector, the Dean concerned may determine the course and year for the re-enrolment of the student.

On the whole, the percentage of failing students has greatly decreased; however figures vary from institution to institution.

The compulsory nature, the degree of organization and regulation, the frequent and systematic assessments, and the requirements for the examinations within the system of higher education account for its quality and its low drop-out rate.

The students complete their courses in particular fields of study after they have passed all examinations and credit tests according to the curriculum, and have successfully passed the state final certification examination which is administered by a specially appointed commission. This examination differs in form for the various institutions. It is frequently combined with the defence of a graduation thesis – a project involving independent work and research by the student guided by some of the lecturers from the chairs in question.

Essentially, the state final certification examination is a comprehensive examination of the theoretical and practical ability of undergraduates to work as specialists. The diplomas issued to graduating students are of nationwide validity.

CHAPTER 10

## PROBATION SERVICE AND PRACTICE

One of the most essential elements in the training of university students as future specialists are certain probation periods of work and periods of production practice or practical training under conditions similar to those graduates will encounter in their future employments. The periods for production practice and for probation service are specified in the curriculum and are included in the education process.

In the case of a considerable number of fields of studies (technical and medical subjects in particular), instructional, laboratory, clinical and other practical training is provided for during the academic year. This training takes place in laboratories, in special workshops and plants, in various production establishments, in clinics, in schools, and in research institutes. Under the guidance and supervision, and with the participation of the staff, the students can see *in vivo* the basic processes and cases related to their fields.

Practical training or production practice takes place in enterprises of the most modern types possessing the requisite equipment, technology and organization, as well as the personnel capable of helping the future young specialists in the acquisition of specific knowledge and skills. Often students will perform such production practice in the places where they will later be employed.

There are two periods of production practice during the entire course of university training: one after the first academic year, and another after the third year. The difference between the two lies in the degree of complexity and in the nature of the tasks assigned to the future specialists. The aim of the first period of production practice is to permit the future



45

specialist to master certain operations and to acquire concrete knowledge and skills and acquaintance with the environment and conditions in which he will work later on. The second period of production practice is aimed at directing the attention of the young specialists to the functions of management (scientific, creative and administrative).

The period of probation work which the graduating student must undertake before he receives his diploma is of particular significance. It is scheduled after the completion of his last term (semester) and after he has taken all his examinations but before he has completed and presented his graduation thesis or project or taken the state final certification examination. During this probation term, which is of different duration for the various higher educational institutions (between one and four months, or sometimes by way of exception, longer) the young specialist undertakes a certain type of work usually in that organization where he or she will work after graduation. This probation work project is completed under the guidance of specialists employed by the respective organization and, possibly also of the research adviser under whose guidance and advice the student is to prepare his graduation thesis or project.

This probation term has an additional and very important function, that of enabling the graduating student to obtain the necessary training for the application of his knowledge in a comprehensive and integral form that will be of help to him in the preparation of his graduation thesis or project and in preparing for the state final certification examination.

Probation services are organized by the higher education institutions in direct collaboration with production units or institutions. The organizational, financial, and legal relations between the two parties are settled by bilateral agreement subject to renewal every year.



46

## CHAPTER 11

## DIPLOMAS AND DEGREES

Bulgaria has adopted a unified system of diplomas for higher education and for the scientific degrees associated with them. They are issued according to a model established by the state and have nation-wide validity.

A diploma is issued to a person who has received training for 4 or 5 years (depending on the particular field of study) in a higher education institution and who has passed all examinations included in the curriculum, as well as the final state examination. The final examination may be an oral, theoretical one, may involve the presentation of a written thesis or project, or may include both.

All diplomas issued by Bulgarian higher education institutions are equal as regards the qualifications certified by them. There is no hierarchy among diplomas issued by different educational institutions in the country in the same field. Nevertheless, the social prestige of these diplomas may be found to differ in actual practice. For instance, diplomas issued by the University of Sofia, by the Higher Medical Institute in Sofia, by the Higher Institute of Mechanical and Electrical Engineering in Sofia, and by the Higher Institute of Architecture and Construction in Sofia are known to be particularly prestigious. Of course, this unwritten hierarchy of diplomas is of no practical significance to the financial or official status of their holders.

The country's semi-higher education institutions (of the college type) likewise issue diplomas to their graduates. These diplomas are of a different type and give different legal rights to their holders. They are issued after 2 or 3 years of training, culminating in final state examinations. No diploma thesis or projects are required. The diplomas issued by institutions of semi-higher education are valid for the entire country, and are of the same type.

Specialists with relatively high qualifications – usually such as are required for research work – are also trained in the Bulgarian higher education institutions.

Students who have completed their regular or extramural post-graduate studies and have successfully presented their dissertations (independent studies on problems usually formulated by senior specialists for the relevant research councils) receive diplomas for the degree of 'Candidate in Science' (equivalent to the PhD). These diplomas are awarded by what is known as the *Higher Commission for Diplomas* whose function it is to ensure that all candidates meet the same level of requirements. Post-graduate training is available for foreign citizens as well.

The highest scientific degree, with its corresponding diploma, is the 'Doctor of Science' (similar to the state doctorate in France, the Habilitation in Germany, and the Doctorate of Science in the United Kingdom). Essentially, this is not a level of additional education, but recognition of the results of original research, for it provides for the successful defence and presentation, before a specialized research council, of the elaboration of some scientific problem by an already well-established specialist of outstanding qualifications. These diplomas are also awarded by the *Higher Commission for Diplomas*.

Diplomas for completed education on the basis of ordinary extramural study or of evening courses do not differ from regular diplomas. Nevertheless, they must indicate the manner in which the higher education in question has been obtained.

There are numerous other established courses for postgraduate training, such as the courses for engineers who are also specialists in applied mathematics, trained at the Centre for Applied Mathematics, the course in robotics at the Centre for Robotics set up by the Higher Institute of Mechanical and Electrical Engineering in Sofia, the courses of the Higher Post-Graduate School for System-Organizers at the Higher Institute of Economy in Sofia, and a number of other educational units which issue special diplomas for a training term of between 12 and 18 months. They do not carry the same weight as the diplomas for full higher education, but their moral value to their holders is considerable.

The diplomas awarded enjoy extensive recognition all over the world, despite the relative youth of the Bulgarian system of higher education. Bulgaria is a signatory to the Prague Convention of 1972 on the mutual recognition of diplomas among the socialist countries, and of the Paris Convention for the European Countries (1980). Participation in these two conventions has appreciably expanded the direct recognition of diplomas awarded in Bulgaria. In addition to these multilateral conventions,

Bulgaria has signed 17 bilateral conventions for the mutual recognition of diplomas mainly with newly liberated and developing countries. They are of great significance both to the foreign students attending Bulgarian education institutions on the basis of bilateral agreements or on their own personal initiative, and also to the work done by Bulgarian specialists abroad. Preparations are under way for the signing of a number of new inter-state agreements for the mutual recognition of diplomas, which will certainly further promote the international significance of Bulgarian higher education.

The international recognition and the real prestige enjoyed by Bulgarian higher education can be measured also by the fact that there have been only few cases of diplomas awarded which have not been legalized and recognized upon presentation in foreign countries, even in those with which Bulgaria has not participated in conventions on the mutual recognition of diplomas.



249

CHAPTER 12

## TEACHING STAFF

Research workers and staff are major participants in the educational process. They are responsible for the presentation of knowledge and the promotion of research within the institutions.

There are four categories of specialists engaged in research and pedagogical activities:

*Professors.* They form the highest rank of the teaching and research personnel. As members of the various bodies of each institution (academic, faculty and chair councils) they participate in policy making and map out the directions for research. The obligations of professors include both teaching and research; they also work directly with assistants, supervise post-graduate and graduate students working on their graduation theses and provide guidance and counselling to undergraduates.

*Associate Professors.* They are staff members of high qualifications whose basic official task is to organize and carry out educational activities with students. In principle there exists no difference between associate professors and full professors either in rights or obligations in the training of students. Nevertheless, in the academic hierarchy the former rank is lower. Associate professors are also members of faculty and research councils, and they act as research advisers to post-graduate students.

*Assistants.* They are the direct organizers and performers of the teaching work in a faculty. They are in charge of the practical activities and of seminars, in addition to checking the students' individual work. Assistants are also in charge of the students' probation work, of their graduation theses or projects, and are involved in the system of post-graduate studies. Exceptionally, they can be authorized to offer courses

in various subjects. Their obligations include research work – independently or under the guidance of a professor or associate professor. There are three categories of assistants: assistant, senior assistant, and head assistant.

*Lecturers.* These are specialists whose duties are to organize and conduct the educational process in certain specific subjects such as foreign languages, physical education, and other activities indispensable for the education institution and for the development of the young specialists.

Higher education institutions are fairly well staffed in terms of researchers and faculty. Also staff quality and numbers are increasing rapidly and steadily (cf. Table 5). There were 12.622 university teachers of all categories in Bulgaria during the 1980-1981 academic year, accounting for a 1 to 7,76 staff-student ratio (these figures refer only to students enrolled in regular courses). The above figure includes 857 full professors and 2.073 associate professors. This means that there is one professor for 29 undergraduates. By way of comparison, the corresponding number in the Soviet Union is 31, and in the German Federal Republic around 40. The high percentage of women among teaching personnel and, in particular, the percentage of women among the professors (cf. relevant Tables) is of great significance.

Table 5 shows that it was during the last 5-6 years that the ratio between the number of teachers and the number of regular students has improved considerably. This progression has been the consequence of two separate trends: the number of research workers and university teachers has increased, while on the other hand, the number of students admitted in recent years has somewhat diminished. These two developments have resulted in a very good staff-student ratio.

It should be pointed out that this favourable ratio is not the same for all education institutions. In such fields as the arts, medicine and in some highly specialized fields the number of students per staff member is very small (2 to 4 students) – a condition which provides for a considerable degree of individualization in the educational process. Conversely, in a number of fields where graduates are in great demand or which are of great significance to the national economy, as is the case with economy and engineering, and also in some of the relatively young institutions of higher education in the provinces the ratio exceeds 10 students per lecturer (cf. Table 8).

The structure of official qualifications of university teachers is rapidly improving. There are 146 'Doctors of Science' among the research workers and teachers, while the number of 'Candidates in Science' (the lower

doctor's degree) is over 3.000. Bearing in mind the considerable and steadily growing requirements set for the candidates of sciences and, in particular, for the doctorates of science, their increasing number is indicative of a considerable qualitative improvement of the university staff.

The qualifications of the research workers and staff contribute to the increasing prestige enjoyed by Bulgarian scientists abroad. There has been an important participation during the last 5-10 years of university teachers in international meetings, symposia, conferences and congresses. The number of articles, monographs and reviews contributed by Bulgarian authors to international scientific publications has been growing quantitatively and qualitatively. Equally significant in this respect is the increase in the number of bilateral and multilateral international contacts, the growing number of foreign scientists who visit the country, the initiation of joint research projects and other forms of cooperation.

Special mention must be made of the age structure of the research and educational staff in our country. On the whole, the average age of the teaching staff is already high and tending to get still higher.

The extensive development of higher education, particularly during the period immediately after 1956, led to a rapid increase in the number of research workers and teachers during certain periods, hence to a relatively uneven age structure. The average age of the teaching and research personnel, particularly in the technical and economic fields, and in a number of higher education institutions which were founded somewhat later show higher figures for ages: 40 to 55. The age structure in the relatively older education institutions is slightly more favourable. Accurate data in this respect have not been processed, but statistics collected in recent years provide grounds to assume that this imbalance will be corrected and that the age structure will be normalized.

All higher education personnel are state employees. They are employed on the basis of permanent payrolls, not on temporary contracts, and, barring cases of severe infringements of the official discipline, which are explicitly stated in law, their tenure cannot be ended before the age at which they are entitled to retire. Research workers and teachers are entitled to pensions at the age of 55 (for women) and 60 (for men). In accordance with the clauses of the *Law on Higher Education*, every staff member has the right to continue working until the age of 60, regardless of rank or sex. By special decisions of the *Faculty Councils* the length of service may be extended each year for additional one-year terms. The Law provides for different terms in the case of professors. The age-limit for them is 65 years (for both sexes), with several possible continuations of one year each,



52

on the basis of special and individual decisions of the *Faculty Council*, duly confirmed by the *Academic Council* and backed by the confirmation of the Ministry of Education. Of course, professors may claim their right to retirement at the age envisaged by the Labour Code for all citizens of the Republic.

12. 1. The teaching staff are appointed on the basis of competitions duly announced in the Official Gazette. All Bulgarian citizens who fulfill the scientific as well as the other established criteria are entitled to participate in these competitions.

Competitions for assistants are announced in the press 1 to 2 months in advance. They are held under the supervision of a commission specially appointed by the Rector of the respective higher education institution and are composed of representatives of the particular chairs (departments) – professors or associate professors who are specialists in the fields in question – and of the *Faculty Board*. The candidates must take a written examination, possibly supplemented by an oral one. The results are assessed according to the 6-grade system. A report is then submitted to the *Faculty Council*, which contains an analysis of the records, experience, and qualifications of each candidate, the classification of the candidates in accordance with the results achieved during the examination, the qualitative evaluations of the commission, and a proposal formulated by the commission for the appointment of one of the candidates. The *Faculty Council* makes its decision by secret ballot. The candidates are not entitled to appeal the results of the competition, unless there is evident proof of procedural violations. Assistants and lecturers are appointed by the Rector of the respective institution.

Candidates for assistantships are usually young research workers who have completed their post-graduate studies and have defended 'Candidate of Science' theses, specialists working in fields of industry, education, or culture, and also young specialists who have recently graduated. The chairs (departments) and faculties usually make a preliminary selection of possible candidates, assessing their abilities and personal data.

Associate professors and professors are appointed in accordance with a special procedure established by the Law on Scientific Degrees and Titles and the Regulations on its application.

The higher education institutions are obliged to announce vacancies for professors and associate professors in the Official Gazette 2 to 4 months in advance in order to fill them on a competitive basis. Such competitions are open to all citizens of Bulgaria who have the necessary qualifications and can submit lists of scientific publications.



53

A commission specially appointed by the Rector of the respective institution studies the documents submitted by the candidates and decides on the admission of candidates to the competition.

When the candidates for a professorship are Doctors of Science (or Candidates of Science for an associate professorship), the competition takes place in the *Faculty Council* of the faculty where the vacancy has been announced, provided the faculty in question has been authorized to carry out such activities. When the faculty in question has not been granted such statutory rights, the competition is held by an authorized council which has authority over the faculty. When one of the candidates participating in the competition does not have the scientific degree required for the job but instead submits a scientific work which has the characteristics of a doctoral dissertation or a candidate of science dissertation respectively, the documents relevant to the competition are sent to the corresponding *Specialized Research Council* of the *Higher Commission on Diplomas*. This Council has the right to grant scientific degrees within the field of the particular competition.

Three reviewers are appointed when the competition involves a professorship and at least two of them must be professors or doctors of sciences. In the case of a competition for an associate professor's position, only two reviewers are required, at least one of them being a full professor or doctor of science. The reviewers submit to the corresponding *Research Council* a written report on the candidates' research, academic, and sociopolitical qualifications. These reports constitute the basis for the deliberations and the subsequent selection of the best candidate. The election is held by secret ballot and the elected candidate must have obtained at least one-half plus one of the votes. The decision of the Council *(Faculty Council or Research Council)* is subject to endorsement by the *Higher Commission on Diplomas*.

The *Higher Commission on Diplomas* in existence since 1950 is a specialized state body in charge of working out and conducting the policy of the state with regards to the promotion of scientific personnel. It provides guidance on the procedures and requirements for promoting professors and associate professors in the various institutions in the country. It consists of a Presidium and of the requisite number of Research Commissions – one composed of 15 to 19 members, all of them professors or associate professors, for each group of sciences. The members of this Commission are appointed every 3 years. The *Research Commission* examines the documents of each competition, irrespective of whether the vote in the Council has been affirmative or negative.



54

Following the presentation of each case by a specially appointed person, a rapporteur, the *Research Commission* examines the proposal submitted by the respective *Research Council*. The Commission may then endorse, by secret ballot, the vote of the Council, and if both votes are in the affirmative, the competition is closed. The *Research Commission* may also reject the proposal of the Council or may confirm a negative proposal made by it. In the latter case the competition is closed after a re-examination and vote in the Presidium of the *Higher Commission on Diplomas*, following procedures similar to those for the *Research Commission*. The decision taken by the Presidium of the *Higher Commission on Diplomas* is final and not subject to appeal. The Commissions make their decisions by secret ballot and simple majority vote. Their sessions are considered valid only if they are attended by a quorum of commission members.

This system, which may seem somewhat complicated, guarantees the quality of the selection of researchers and university teachers. It also establishes approximately uniform national criteria in this field for higher education and other scientific institutions.

Cases of dismissal of professors and associate professors are extremely rare in Bulgaria. The procedure in such cases is comparable to that followed for their appointment. It is strictly controlled by the *Higher Commission on Diplomas*, care being taken to defend the rights and the prestige of the country's professors and associate professors.

The teaching load and other obligations of staff members are fixed by means of norms, approved by the Council of Ministers. The basic parameter for measuring the workload of the staff is the number of lecture classes and seminars taught per week. One hour of lecturing is equal to two seminar hours. The average number of hours ranges between 8 and 16 a week per teacher. There are variations from institution to institution which depend on the number of teachers available. Whenever necessary, a higher education institution may secure the services of outstanding specialists who are paid by the hour and, although not part of the standing establishment, perform the necessary functions of a university teacher.

Research work is part of the obligatory activities of the staff and is subject to periodic assessment. It includes published research papers and monographs, papers presented at scientific sessions, conferences, and other public scientific manifestations, creative research whose results have been found useful in industry, agriculture, public health, culture, etc., as well as scientific guidance offered to undergraduates working on their graduation theses, or to post-graduate students.



55

The obligations of the teachers also include their guidance of and control over the practical training and the probation work of the undergraduates, their participation as research advisers and as co-authors in the students' scientific and technical projects, and in the guidance which they give to student study circles. In addition, the staff must also endeavour to improve their personal qualifications by such means as writing textbooks and devising new study courses.

On the whole, the workload of university teachers amounts to about 1.800 hours a year. Actually, most teachers work many more hours than their official schedules require, this because of their profound personal interest in and dedication to their profession and to scientific research.

12. 2. There is a special system for continuing education and for the improvement of the teachers' professional levels. This is part of a nationwide system intended to raise teaching standards. Particular attention has been paid to the long-term specialization courses in the socialist countries (particularly in the Soviet Union), and also to the specialization courses organized by the Bulgarian Academy of Sciences. Favourable conditions have been created for the study of foreign languages. University teachers, particularly younger ones, are offered opportunities to attend 6-month courses in a foreign language of their choice, during which time they are relieved of all their official duties. This has resulted in recent years in a considerable rise in the foreign-language proficiency of the country's university teachers. Today, thanks to the adequate study of foreign languages, all young Bulgarian scientists are proficient in a Western foreign language (usually English), as well as in Russian.

12. 3. The specific characteristics of the work of a university teacher inevitably result in a considerable extension of his rights and privileges. In the first place, a teacher in Bulgaria enjoys a high degree of independence in all his activities. He himself plans his engagements and commitments, he is absolutely independent in budgeting his time and he himself decides what research projects he is going to undertake.

In fact, the only firm commitment and engagement for university teachers is the weekly schedule of lectures and seminars. There is no supervision whatever of a teacher's work. Traditional 'academic freedom' is restricted solely by the demands and imperatives of the educational process.

Academic freedom is perfectly compatible with discipline and faculty evaluation. Bulgarian higher education institutions impose discipline and evaluate teachers along the following lines:

a. Observance of educational discipline – regular holding of lectures



456

and exercises, participation and efficient guidance in the students' probation work, observance of the fixed hours for free consultations with students, and participation in the meetings of the *Research, Faculty,* and *Chair Councils* and in other meetings and sessions.

b. Evaluation by periodic reports on each staff member. Such reports contain an official and comprehensive evaluation of the teacher's research and educational activities. They go into his record as official and social assessments of his standing.

c. Periodic assessments of the quality of teaching. Qualified university teachers attend the lectures and seminars of their colleagues. They thus analyze the results obtained by particular teachers, including the results of testing administered to students taught by them.

In view of the fact that the teachers' working day is not defined strictly in terms of working hours, they belong to the category of wage-earners who have the longest paid annual leave in the country (45 working days). As a matter of principle, their working week is 6 days, but the board of the higher education institution has the right and obligation to grant each staff member one free day, so that in this manner all teachers have a 5-day work week. This day off is not necessarily a Saturday and, as a rule, it is not one and the same day of the week for all teachers in the particular institution.

12. 4. Special medical services have been set up for university staff. There is a special university polyclinic in Sofia.

The holiday centres and resorts run by the institutions for their students and teachers provide opportunities for guaranteed holidays and recreation under favourable conditions and at moderate prices. Although all the necessary facilities have not yet been completed and the institutions of higher education cannot provide opportunities for organized and subsidized summer vacations for all students and staff, a great deal has actually been accomplished, particularly during the last several years. The prospects are to complete this process within the next decade.

## CHAPTER 13

## ADMISSION TO HIGHER EDUCATION

The basic element and grounds for the existence of higher education institutions are the students who enrol in them. The number of enrolees is determined by the State Plan which is endorsed by the National Assembly on the proposal of the State Planning Committee. The number of newly admitted students is determined in accordance with the needs of the national economy and of social and cultural life, on the basis of applications made by the central departments.

Admission is on the basis of entrance examinations. Applicants must submit the documents required, including a certificate of completed secondary education. On the basis of these documents the candidate is registered for the entrance examinations.

The competitive entrance examinations are taken in writing and the papers are graded anonymously. Depending on the particular institution of higher education, the applicant takes two or three examinations. In the case of higher schools of technology, for instance, candidates for the departments of machine building, civil engineering and electrical engineering must take examinations in mathematics and general culture. The written examination in mathematics is evaluated according to the 6-point system, from 2 to 6, while the written examination in general culture is evaluated in terms of 'pass' or 'fail'. If the latter is the case, the respective candidate will have his grade in mathematics reduced by 0,5.

The order of classification of the candidates is established on the basis of the average grade (mark) resulting from the grade or grades obtained in the subjects of the competitive entrance examination, the grades in the subjects in the candidate's secondary school record as specified by the regulations for admitting students to specific fields of study, and

the average number of points scored by the candidates in secondary school. The number of students admitted to the first year of study will be fixed in accordance with the places available in the respective field of study. In exceptional cases, when the number of candidates who have been particularly successful in the competitive entrance examinations is higher than the number of places provided for by the plan, the *Council for Higher Education* may allow the admission of a slightly higher number of students in certain fields.

13. 1. There exists a certain number of preferences and privileges in the admission of students. They concern different percentages of the places planned for the different fields of study. These privileges are related to the profession of the parents of a particular candidate. Their purpose is to stimulate access to higher education of young people of worker and peasant backgrounds in order to complete the number of students in these fields and to promote the intellectual development of their respective social groups.

Young workers who have been particularly successful in the area of production are admitted to one-year courses for the training of future university students. Candidates for these courses are nominated by the enterprises and by the District People's Councils, which keep records of the candidates' results as well. After one year of training at the respective institution in the basic subjects, the Bulgarian language included, the candidate-students are expected to take a number of examinations. Those of them who have completed the preparatory year with an average grade of over 4.00 are admitted to higher education without competition. The remaining students whose average grade is above the passing mark (3.00) are entitled to take part in the competitive entrance examination. If they pass the examination by a mark of over 3.00, they are also admitted, regardless of their classification, to the number of places specially allotted to them among the entire number of places. This procedure has an important social function: it gives a chance to young people, directly engaged in material production, who have given proof of their efficiency and desire to learn but lack the necessary time to prepare for the difficult competitive entrance examinations.

The number of candidates for admission is much larger than the number of places available. Table 10 shows that the number of candidates has become stabilized at about 55.000 to 60.000 a year. The number of students admitted has also become stable at around 14.500 a year. The ratio of 4 candidates for one place is considered to be acceptable.

It is necessary to point out, however, that the competition is not the



59

same for all specialities. Students have shown increasing interest in recent years in the humanities (law, philosophy, literature, etc.), and there has been a certain decrease in the number of those interested in various branches of engineering and medicine (ref. Table 10).

The system of admission is, as a whole, based on the assessment of the candidate's personal qualities, capacities and interests. The candidates' rights are protected by anonymity and secrecy at all stages of the competitive examination process by making the results public.

The distribution of the students by groups of fields of study depends on the needs of the national economy and differs for each year of study as well. According to statistics, the variations are not essential for the individual years, since the structure of the economy is not subject to rapid changes.

The territorial distribution of university students is likewise irregular. Data show that the pattern of historical development of higher education in our country still persists, and the concentration of students in Sofia is still considerably above that which is considered to be normal. Nevertheless, efforts made to redress this situation have had considerable success.

13. 2. No detailed studies have been made of the social backgrounds of students. The indicators in this respect, as determined by the statistics, refer to rather large groups. Table 16 provides data that are general and do not include sufficient information about the actual social composition of the student body. Nevertheless, it is possible to refer to certain essential features which provide a certain qualitative idea about the nature of the student contingent and about the real democratic spirit underlying its formation:

a. Young citizens who have successfully completed their secondary education possess, as a matter of principle, the right to participate in the competitive entrance examinations. In order to do so, they need to have at least the minimum grades necessary for qualifying.

b. The absence of essential differences in the financial statutes of Bulgarian citizens has made it possible for all people to apply for admission under comparatively equal social conditions. There exists no discrimination for or against individual students as determined by the property status of their parents.

c. Certain essential differences do exist among university candidates, originating in the intellectual background of their families. Candidates whose parents possess higher education qualifications are inevitably in a more favourable position when taking the competitive entrance examina-



60 13

tions, primarily on account of a more stimulating family environment.

d. Certain partial studies, far too incomplete to be published, tend to suggest that the social structure of the student body is very close to that of the entire society.

e. The equality of rights enjoyed by women is demonstrated by all statistical data. Indeed, it has become necessary to limit the strong feminization of certain fields.

Students are obliged, as already indicated, to take all examinations envisaged in the curriculum in due course and within the framework of each academic year. Practice has proven that the students are essentially able to meet these requirements and to display considerable interest in their work. According to the statistical data, the number of students who drop out or who delay the completion of their courses of study or their graduation theses (or projects) has been steadily decreasing and has stabilized at a level which specialists regard as normal and in line with the natural selection inevitable in a course of higher education.

13. 4. In each institution students are organized into study groups. A study group is a basic organizational unit of the process of training and of the student body, which is relatively homogeneous in its composition. Its organization is connected with a particular field. Each particular study group contains students of a particular field and of the same level. The group possesses considerable rights of self-management for the process of education. The views of the students are expressed through their youth organization and through the representative which each group elects subject to the endorsement of the Rector. A faculty advisor is assigned to each study group.

Students enjoy a number of rights and privileges related to their training and to the work they do in their respective institutions, namely:

a. The right to participate in the processes of education, to use laboratories, libraries, and other facilities created to aid their training, to consult with their lecturers, etc. These services are provided free of charge.

b. Unlimited participation in the social and political life of the country as active citizens for whom time spent in higher education institutions is an essential part of their immediate training for becoming active citizens.

c. Participation, through elected representatives in the youth organization, in the management of the higher education institution at all levels. The whole pattern is one of genuine co-management, while in certain matters the situation is one of student self-management.



61

## CHAPTER 14

## JOB ASSIGNMENTS FOR GRADUATES

Legal provisions and the considerable demand in the country for highly trained personnel in all specialties virtually guarantee that all graduates will find jobs. Just before the graduation of each class special commissions, which include representatives of the administration, of the teaching staff, of the students and of the enterprises and establishments where the graduates are to be employed are formed to distribute the graduating students. The representatives of the enterprises and establishments make their proposals, while the undergraduates – the future specialists – formulate their requests about the places and nature of the work they are to be doing. The jobs offered are accepted on the basis of mutual agreement. This process of distribution takes into account a number of specificities in each concrete case and also involves the granting of a number of rights and privileges as follows:

a. Young families composed of two specialists have the right to be assigned jobs in the same localities and even in the same enterprises or establishments provided they are of the same or similar specializations.

b. The most successful students are given preference in the selection of their places of work.

c. Young graduates who are residents of particular towns or districts enjoy preferences in obtaining employment in those areas. However, graduating students who received grants from specific enterprises or district people's councils, are obliged to accept employment made available to them by those enterprises and districts.

d. Young graduates are exempted from obligations to accept jobs assigned to them (whenever such obligations exist) on valid family-related or other grounds.



62

As for young medical graduates, they are assigned jobs according to a specialscheme which during the first three years of their practice as physicians will give them the required multilateral practice experience. Likewise, some areas of Bulgaria that are considered unattractive are ensured the availability of physicians through the obligatory assignement to them of sufficient numbers of young physicians.

14. 1. The representatives of the graduating students in the commissions charged with distributing the available assignments have a most important role to play. They actively uphold the interests of their colleagues, doing everything possible, commensurate with the principles of justice and equality, to settle the differences that are apt to appear between the graduating students and the various commissions.

Unemployment, so far as young Bulgarian specialists are concerned, does not exist. All students graduating from higher education institutions in the country have guaranteed places of work even though the particular offers made do not always completely tally with the desires and the preferences of the young specialists. This situation may give rise to certain conflicts, but they can always be resolved on the basis of the natural movement and migration of the labour force, and also on the basis of the opportunities offered to young specialists to take jobs assigned by competitive examination, and thereby change their places of work.

However, as a matter of principle, the obligatory period for holding a job on the basis of an original assignment is 3 years.

14. 2. Of course, there can be no permanent and ideal equilibrium on the 'labour market'. There are at times acute shortages of certain specialists, while at the same time there may be a surplus of experts in other fields. As the educational system, including that of higher education, has a relatively high degree of inertia, it cannot quickly respond to the emerging requirements or to the employment of the labour force. Thus the Bulgarian state is taking concerted measures to balance the two opposite phenomena.

An exceptional procedure exists for particular cases, which has only been employed twice. It is the deliberate creation of jobs to accommodate a temporary surplus of job seekers. The normal procedure, however, is the prompt re-training of some specialists (young or mature) so as to respond to new requirements. It should be pointed out that imbalances are a rare phenomenon and that when these occur they are imperceptibly reequilibrated. Somewhat greater difficulties have been encountered with the graduates of the 1975-76 and 1976-77 academic years.

In addition to the other factors which tend to stabilize and to equilibrate the number of well-trained specialists there is a provision for

the temporary 'export' of skilled experts to take part in international cooperation programmes in certain developing countries, particularly in the cases of physicians, engineers, economists, and teachers or lecturers for secondary, special and higher educational institutions.



64

CHAPTER 15

## SOCIAL SUPPORT SERVICES PROVIDED FOR STUDENTS

Enrolled students are the objects of particular services which evolved steadily after 1956 and made notable jumps forward, first after the publication, in 1968 of the Theses on Work among Young People of the Central Committee of the Bulgarian Communist Party, and secondly, of President Todor Zhivkov's letter on the same subject to the Central Committee of the Dimitrov Young Communist League in July, 1978.

A very great number of Bulgarian students (56 per cent) receive scholarships from the state and from various central departments, districts, and industrial or other establishments. Each student at an institution of higher education who successfully passes his examinations with an average grade of over 4 and whose family's per capita income does not exceed a particular limit (which is the object of periodic recalculation), is entitled to a scholarship.

Exellent students, those who have earned an average grade of not less than 5,50 are entitled to scholarships regardless of their families' incomes. Moreover, these scholarships pay higher stipends than ordinary ones.

There are also special scholarships named after eminent Bulgarians, which are granted to students of particular distinction in creative work as well as in their studies and their social activities. A scholarship of this kind is a special distinction for its recipient.

Students lose their scholarships if their average grades for the year drop below a required figure. This penalty, however, may exceptionally be waived for students whose families have very low per capita incomes.

15. 1. A great deal is being done to provide accommodations for students. As a result of the adoption of an intense construction programme,

carried out mainly during the 1970-1980 decade, accommodation had been provided for a total of 43.907 students by the end of 1980 accounting for 64,4 per cent of all regular students.

Because for various reasons there continues to be a shortage of university-provided student accommodations in some of the university towns of the country, provision has been made for the construction of more residence halls during the current Five-Year Plan (1981-1985), to fully meet the needs of the students everywhere. As a provisional solution to the problem, private accommodations have been provided for students in some university towns for which the city people's councils pay part of the rents. Thus landlords receive rental payments for the premises which they are able to give up temporarily (such premises sometimes costing too much for the budgets of students), while the burden for renting them is not borne by the young man or woman needing the accommodations.

A great deal still needs to be done in this respect in some of the rapidly growing university towns, such as Plovdiv, Varna and Veliko Turnovo.

15. 2. Scholarships and the extremely low-priced state-supplied student accommodations are under the direct control of the student body acting through its organizations, and of the student organs of self-management. The lists of scholarships are always made public. Student groups, particularly those organizations affiliated with the Young Communist League, give their views on the granting of scholarships. Their views carry much weight, particularly in borderline cases. Students set up special councils in their residence hall blocks which possess considerable administrative authority in ensuring the observance of regulations relative to cleanliness, discipline, and other conditions of normal life.

15. 3. A very broad network of restaurants and canteens has been set up to cater to the needs of students. Student canteens operating in 1980 had a seating capacity of 14.800 which implied a meal-serving capacity of 44.400.

The existing restaurants and canteens are sufficient to meet the needs of the students in almost all university towns, and even to provide some extra places. About 35.500 students, a number accounting for 54,4 per cent of the overall number of regular university students prefer to take their meals in these restaurants and canteens. Most of the student canteens are located in special buildings, 11 of which have been built during the 1970-1980 period. Equipped with the most modern machines and installations, they can serve meals to 2.500 guests. All the maintenance costs of the student canteens and restaurants, as well as 50 per cent of the cost of the food served in them, are borne by the state budget.

15.4. Relatively less has been done to provide for the rest and recreation of enrolled students. There are a total of 12 student resorts and holiday camps, 7 of which are in the mountains, 4 by the sea, and 2 at balneological centers. Room and board at these centres are provided at very low subsidized prices. However, their capacities amount to only 1500 beds. A total of 12.337 students availed themselves of these subsidized facilities during 1980. A further 9.870 visited the resorts of the individual institutions of higher education, and another 2.467 went to those of the trade unions. Thus, 19 per cent of the regular students availed themselves of these opportunities, 15,2 per cent using the holiday resorts and camps designed specially for them.

Obviously, facilities such as these are less developed than other types of higher education facilities; certainly there are far fewer of them than are needed. Moreover, conditions in some of the resorts, despite their favourable locations, are not particularly good and show the signs of long use. The holiday and recreation centres for university students to be built during the 1981-1985 period will total 1.650 beds, bringing the total capacity of such centres to 3.150 beds. Facilities will therefore be available by 1985 for about 21.500 students, that is 32 per cent of the total number of regular students.

In addition, a number of higher education institutions, helped by the respective district people's councils and by other organizations are gradually setting up specialized recreation facilities for university teachers and students in many parts of the country. These facilities are being developed in the finest resort areas along the Black Sea coast and in the mountains. Conditions for rest and recreation in these centres are very good, but the creation of facilities in such internationally renowned resorts is found to be a difficult and slow process.

15. 5. Students and teachers are provided with particular medical care facilities. There is a special polyclinic for them in Sofia which conducts prophylactic examinations of all staff members and students once a year. Similar care, though not in such a specialized medical institution, has been envisaged for students and teachers in the remaining university towns of the country. The analyses made indicate very low sick-rates and good physical fitness on the part of students and teachers. Out-patient treatment and permanent medical care is provided for students affected by chronic diseases. In order to provide better conditions for the treatment of students suffering from serious diseases that require long periods of cure and convalescence, the administrations of the higher educational institutions make things easier for such students by taking such measures as postponing the dates of their examinations and by permitting them to

take these examinations at times suitable for them.

15. 6. Families in which both husband and wife are university students are likewise the objects of much attention. They have priority in obtaining family flats in the blocks of student residences. They are considered to be independent families without incomes and are therefore automatically granted scholarships. Places are guaranteed for their children in special nursery schools and kindergartens. Thus it is possible for young student couples to avoid many of the difficulties inherent in combining full time study and parenthood.

15. 7. Culture clubs which do a great deal to provide conditions for varied, pleasant and useful recreation are active in all student communities of the country. Scores of local clubs, record libraries, permanent or temporary amateur-art, folklore, jazz, chamber music and other ensembles, amateur art shows, numerous dance groups, etc. serve to expose students to cultural variety, thus making their leisure time more pleasant and meaningful.

These activities are directed by the organizations of the Dimitrov Young Communist League – a mass political organization of students – the activities of which are assisted morally, organizationally and financially by the various higher education institutions, by the *Council for Higher Education*, and by a number of other organizations whose activities have a bearing on the lives of students.

After 1980 students began to make an increasingly active utilization of the material structures of cultural life that had been set up in the towns and villages for all citizens. Their initiatives have greatly increased the facilities available to students for the satisfaction of their cultural interests and for the manifestation of their creative capacities in the realms of culture and the arts.

Nevertheless, the problem of providing sufficiently for the cultural development of students will continue to exist because the cultural needs of the student body are constantly growing.

15. 8. Sports activities among university students have been developing very actively.

It is an obligation for students to take part in sports. They must all devote a definite number of hours per week to physical education from the beginning of their student careers to the moment they graduate.

As a result of this physical education requirement, there exists an extensive network of competitions in almost all kinds of sports, particularly in track-and-field sports, in team sports and in swimming, which start with individual student groups and end at the national level.

University level competitions determine first the champions of the

faculties and then the champions of the various institutions.

National student sports contests, organized and conducted by the 'Academic' Sports Club, are held every year.

Abundant facilities have been provided for the practice of sports. All the larger institutions in the country have their own sports complexes which are at the disposal, all year round, of the students. Another advantage accruing to students is that they have access to all the sports equipment and installations of the various clubs belonging to enterprises and establishments in the towns and villages of the country.

Despite the fact that students must bear the heavy academic burden of required attendance at lectures and exercise sessions, they have become increasingly interested in physical education and at efforts for attaining harmonious physical development. This fact is becoming apparent through the regular successes of Bulgarian teams in a number of international student competitions.

All the cultural and sports activities of students are assisted and financed by the state, acting through specialized organs of student self-management.



69

## CHAPTER 16

## FOREIGN STUDENTS

Thousands of foreign students are currently enrolled in various Bulgarian universities.

The attached Table shows that the ratio of foreign students to the overall number of students has been steadily rising. During the 1980-1981 academic year there were a total of 3.988 foreign students in Bulgaria, representing 4,9 per cent of the total. Their distribution by groups of specialties for the year 1979-80 is given in Table 13. The changes that have occurred in comparison with the 1976 figures are shown in Table 14. Almost all of them show increases.

A specialized educational institution, known as the 'G. A. Nasser Institute for Foreign Students' has been set up in Sofia for the purposes of aiding foreign students in overcoming the language barrier and for equalizing their entrance levels for matriculating at Bulgarian institutions of higher education. This Institute offers a course of one year, during which its foreign enrolees engage in the intense study of the Bulgarian language and, depending on the specialty they wish to take up, also study one or two additional subjects (mathematics, physics, chemistry, etc.) at a level slightly higher than that envisaged for the country's secondary schools.

Foreign students attending higher education institutions are given special attention. During their first year of university studies, most of them attend special lectures and exercises for foreign students organized in small groups, aimed at helping them learn the lessons which are presented to them in Bulgarian and at integrating them fully into the educational institutions at which they are enrolled. This procedure, however, does not in the least imply that the requirements for foreign students are different

from those pertaining to Bulgarian students. It is simply an example of the consideration for these students felt by the Bulgarian State and its desire not only to make certain accommodations with their individual rhythms and previous training but to continue helping them overcome the language barrier and other difficulties that they may confront. After the year of language training and the initial year of university studies, foreign students are completely integrated with their Bulgarian counterparts.

All foreign students are provided with accommodations by their respective institutions in student residence halls. Thus they are given opportunities to improve their Bulgarian to the necessary level of perfection under the most natural conditions, and also to develop friendly and creative relations with their Bulgarian colleagues.

Foreign students enjoy full equality of rights with Bulgarian students. Special 'clubs for international friendship' with the aim of satisfying the specific cultural needs of foreign students have been set up in all the larger institutions of higher education in the country where relatively large numbers of foreign students are studying. These clubs in addition to sponsoring various cultural and political manifestations, serve as a means by which these students can present the culture of their countries of origin to Bulgarian and other foreign students.



71

## CHAPTER 17

## POST-GRADUATE TRAINING IN BULGARIA

Post-graduate training is an integral part of the mission of Bulgarian higher education. As early as the 1960's and stimulated by the rapid development of science and technology in the country and also by the large scale introduction of new technological processes and equipment, many of the country's higher education institutions, particularly those specializing in technology and economics, set up advanced training courses. These courses were very often related to innovations in computing equipment and to new methods of economic management.

At the start of the 1970's and on the basis of accumulated experience, a unified state system was created for the post-graduate training of specialists at various levels of education, skill and need for additional training.

Such post-graduate training programmes are, for the most party set up by special sections in the universities for post-graduate training. These sections are placed administratively and methodologically in charge of ad hoc courses of various durations and organizational forms. Most of the country's larger institutions have a vice-rector responsible for these activities. He is also in charge of post-graduate studies proper which lead to the award of advanced academic degrees.

17. 1. The costs of obtaining post-graduate training in the universities is borne, as a matter of principle, by the central departments, combines, or enterprises which second their employees to such programme. Specific terms are stated in written agreements or contracts signed between the enterprise or department in question and the higher educational institution. As a matter of principle, all the expenses connected with such post-graduate training course including remuneration due to the teacher are



72

borne by the parties to the contract who have requested the training. This fact explains why the financial plans of many enterprises and establishments regularly include funds for the additional training of their specialists not only in the enterpises or institutions themselves but in higher educational institutions and in other places.

17. 2. The scientific and methodological problems of post-graduate training are solved by the chairs or university departments charged with organizing such training, in cooperation with the applicant organizations. The curricula and syllabi worked out are endorsed by the heads of the applicant organizations and of the higher educational institution, on the proposal of the relevant chair and of a special *Council on Methods* in post-graduate training, or of a relevant *Faculty Council* (there is a great variety of forms). These actions lead to the setting up of an educational process which varies according to the duration, form, character, content and aims of the training needed. Courses of post-graduate training are usually very intense (brief in duration but with high daily workloads for the participants) or are carried out on a mixed basis, consisting of a series of regular lectures and assignments for independent training to be undertaken between lecture sessions.

17. 3. There are also specialized schools in the country for the training of particularly skilled specialists in certain fields. In view of their specificity and of the small number of students attending them, these schools are not part of the system of regular training offered by higher education. An example is the training of mechanical, electrical and construction engineers which involves a high concentration in mathematics particularly in the case of engineers specialized in applied mathematics. In point of fact, such a programme is a kind of continuation of the normal training for an additional period of 1 to 1 1/2 years during which a specialized and strictly oriented curriculum is followed with great intensity.

17. 4. For various reasons, it is difficult to provide quantitative information about the post-graduate training conducted at the institutions of higher education in Bulgaria. Because of lack of experience in this area, the administrative and organizational structures of post-graduate training have changed frequently and have operated under different departments during the past 15 years. Thus statistical data tend to be unreliable. However, the relative and absolute volume of work in post-graduate training has been growing steadily as is demonstrated by the turnover in university sections engaged in such training and by the increasing number of courses offered and people attending them in the leading educational institutions, particularly those concerned with technology and economics.

In addition to the work carried out directly by the higher education institutions, mention should be made of the contributions of eminent university teachers to the organization and implementation of post-graduate training by various ministries and central departments, by big industrial establishments, and by leading research institutes. The material incentives offered to the lecturers, the high prestige enjoyed by participants in such kinds of work, and the lasting contacts thereby established with some of the most dynamic economic sectors, all play a very essential role in involving some of the finest lecturers from the universities and from the Bulgarian Academy of Sciences.

17. 5. A markedly high degree of post-graduate training has been organized for medical personnel. Following the example set by the Soviet Union, Bulgaria has created an Institute for the Post-Graduate Training of Physicians. All medical personnel in higher education must periodically pass through this Institute. Physicians can receive specialized training at this Institute, and they are required to attend short refresher and check-up courses. This Institute has become a highly respected medical institution which operates as part of the Medical Academy.

17. 6. In view of the ever more frequent resort to post-graduate training and of its nationwide significance, a number of departmental post-graduate training centres have been set up in the country, under various ministries and central departments. The higher educational institutions have nevertheless preserved their role as the principal centres for post-graduate training offered to specialists working in the fields of applied and fundamental sciences.



74

## CHAPTER 18

# THE ROLE OF RESEARCH

Having been influenced by Russian, German and French academic thinking and professorial environments, the Bulgarian academic tradition naturally includes research as part of the comprehensive activities of higher education institutions.

Shortly after the founding of Sofia University, its professors and students undertook a series of research projects related to Bulgarian history and folklore, to the Bulgarian language, to the botany and zoology of the Balkan Peninsula, and to certain problems of chemistry, physics and mathematics.

Typical of the research usually carried out in higher education institutions by professors-specialists is the close involvement of students in it.

A basic principle of research projects is their planned character. Professors and lecturers work on the basis of annual and five-year research plans which are part of the departmental, university and state plans for scientific research.

Such research plans are in no way imposed from above; rather they are drawn up on the basis of proposals made by the teaching staff which takes into account the needs of the state, the requirements of certain production processes and the underlying trends in world science.

An important means whereby the attention of teachers and advanced students is diverted towards certain possible projects is the centralized allocation and distribution of financial, material, technical and manpower resources.

Significant results have been obtained from this planned approach and from the organized efforts of the country's specialists, particularly those



75

affiliated with the nation's institutions of higher education.

18. 1. It has become a widespread practice for academic staff members to work on research projects which are directly assigned by the country's industrial, agricultural and non-productive spheres, the aims of which are to solve certain urgent practical problems by scientific means. These research projects which are contracted out to higher education institutions enable the teachers and students involved in them to receive significant extra remuneration, as well as to obtain directly measurable practical results from which they receive additional financial rewards.

To illustrate this process, we would like to present the pattern o. research work carried out in the country's universities in 1978. The national plan for scientific research that year called for the solution of a total of 92 problems. The universities were the leading performers in undertaking the solutions of 45 of these. For the remaining 47 projects, they operated as collaborators of the Bulgarian Academy of Sciences or of research institutes at industrial associations or enterprises.

The number of research projects financed by the Ministry of Education is almost equal to those financed by the other State ministries and departments.

Work on a total of 714 research projects was completed during 1978. They included 19 problems of nationwide significance, 16 problems assigned in connection with the activities of the Council for Mutual Economic Assistance, and 203 fundamental studies. Work has been completed on contracts for 100 new or improved industrial products, 126 new or improved technological processes, 49 investigations of the automation of industrial processes and the improvement of the organization of labour and management.

Although there was great variety in the research projects undertaken in universities, it should be pointed out that about 20 per cent of the projects were of a fundamental nature and that over 54 per cent were of a practical or applied character. The share of research projects concerned with industrial products (17 per cent) and technologies (37 per cent) was particularly favourable. Of greatest significance among the subjects of fundamental nature were those on which relatively little was being done in the Bulgarian Academy of Sciences. There were subjects for which there existed competent research potentials in the universities.

Classified according to their subject matter, research projects are concerned primarily with those sectors of the economy which have traditionally been the principal consumer of 'grey matter'. Some 383 subjects (34 per cent of the total number) were designed to respond to the needs of

agriculture, and 400 of them (37 per cent pertained to the requirements of industry (188 projects for machine building, 101 for the electrical engineering and electronic industries, 111 for the chemical industry, and 96 projects related to the country's mineral resources and metallurgical industry).

The salient features of the research work undertaken are as follows:

a) Personal creativity in research, the scientific distribution of chairs, departments, faculties, and even institutions of higher education and the section of the state plan for the advancement of science assigned to the system of higher education and other relevant educational activities, all are organically related to lectures.

b) Fundamental and applied research projects are handed as organic wholes. Fundamental investigations provide primary bonds between known and new scientific knowledge and lecture courses. Consequently, they have a directly favourable effect on the training of students. The propagation of applied research, which is usually pursued with the active participation of the students themselves, tends to cultivate among them a taste for research of a practical orientation, as well as the skills for making practical applications of basic discoveries.

c) Research work is accompanied by the active integration of the universities, the institutes of the Bulgarian Academy of Sciences, the various research institutes, and centres of industry, agriculture, culture, management, and spheres of actual practice.

d) Research projects are normally assigned to large groups of collaborators including post-graduate students, undergraduates and assistants drawn from outside the higher educational institutions. They all cooperate closely with one another.

The success of that part of the research work carried out in the country's universities during 1978 may be gauged by the fact that the return from it amounted to 11,2 levs per lev invested, while the return from funds invested in all other research amounted to only 3,7 levs per lev invested.

18. 2. The movement known as 'Technical and Scientific Creative Endeavour of Young People' accounts for an essential part of the research work carried out in the universities. It is part of a nation-wide movement which came into being over ten years ago. Although as a movement it is strictly spontaneous, it has naturally been helped by outstanding scientists and research workers as to its organization, its methods and its adoption of correct approaches to concrete research problems.

The movement for the technical and scientific-creative endeavours of

young people already has a long history behind it. The 10th national review of the movement held in 1978 was marked by such events as the 'Days of Science and Technology'. They included the organization of major exhibitions of works created by students scientific sessions, field days (in science and technology) and evenings dedicated to various specialties.

The national exhibition included 703 different exhibits; 2.019 papers were read at sessions held in various educational institutions. Students participated with 256 papers presented at the national scientific session and with 34 papers in international sessions. Ninety three papers on research projects carried out by undergraduates were published during the year.

During 1978 a total of 26 councils for the Technical and Scientific Creative Endeavour of Young People were operating in Bulgaria in addition to the work done by 99 clubs, involving 23.423 participants. This figure must be supplemented by the participation of 2.553 young scientists in the movement. A large number of events were organized by the existing 693 study-circles in the country, by 786 research teams charged with work on concrete problems (organs for contractual research projects at higher education institutions) and by other groups. A total of 169 field-days were held involving 10.364 participants; 74 theoretical conferences were held, and 47 research classes were organized for young researchers.

The management and guidance of the Movement for the Technical and Scientific Creative Endeavour of Young People is entrusted to councils composed of undergraduates and university teachers in which student self-initiative play a major role. The Movement consequently performs the additional function of training future managers in research and of stimulating a taste for broad democracy in the management of such delicate fields of work as thematic and applied research.

18. 3. The active participants in research are post-graduate students. As can be seen in Table 15, the number of post-graduate students being trained in higher education institutions is not very large: it is below 4 per cent of the total number of university students and less than 2 per cent of regular students. However, the role of post-graduate students is not measured by their absolute or relative numbers but by their activities which in the practical application of the results of research, is of great significance.

The post-graduate course designed to train highly competent specialists and to award them academic degrees is a particularly demanding one. It lasts 3 years for students in regular attendance and 4 years for extramural study.



78

CHAPTER 19

## UNIVERSITY LIBRARIES

Each higher education institution has its own specialized library with reading rooms, lending services, data centres, etc. Favourable conditions have been created for giving students and lecturers prompt and easy access to the books that they need, or for information on books and periodicals which can be found in other libraries in the country or abroad.

Expressed in terms of figures alone, the total number of books in the university libraries may not seem to be impressive. It amounts to some five million books and periodicals, hardly 70 volumes per university student in the country. What is significant, however, is the fact that these are comparatively recent books and periodicals which were obtained primarily during the last 30 years and reflect the state of science, technology and culture during the second half of the 20th Century. The bulk of the educational literature is in Bulgarian. Monograph literature is primarily in Russian (original and translated works).

The best developed libraries in all respects are those of Sofia University - with 18 branches, over 1.200.000 books and about 200.000 volumes of periodicals; of the Medical Academy - with 12 branches; and the Central Technical Library at the higher technical educational institutions in Sofia with 800.000 books and 175.000 volumes of periodicals. This latter library has 5 branches which can be regarded as independent libraries.

The information given above does not include the books kept and used in the relatively small (though large in number – over 500) libraries of the individual chairs or departments. These are strictly specialized library centres, usually run by the members of the departments themselves, containing the most frequently used books that are of direct and current



79

interest to the lecturers, the post-graduate students and the undergraduates, particularly those working on their graduation theses. A library of this type has some 2.500 volumes; periodicals are not normally kept in it. When these books are taken into account, the number of library volumes in Bulgaria rises by about 1.500.000.

University libraries in the country do not embody all the possibilities that professors and lecturers have for receiving prompt and up-to-date information about innovations in science and in technology.

For several years, the *State Committee for Science and Technological Progress* has been issuing specialized bulletins giving specific information on various fields of science and technology.

During the last two decades, Bulgaria has had a *Central Institute for Scientific and Technical Information* – a specialized institution providing information at the request of specialists. This Institute maintains active ties with several international centres for scientific and technical information and periodically exchanges appreciable amounts of information on discs and tapes with them. Thus the Institute has been able to provide prompt, efficacious and valuable references and checks.

Finally, the Cyril and Methodius National Library, the Central Library of the Bulgarian Academy of Sciences and the Central Technical Library are also engaged in constant inter-library exhanges (through micro-films, books, etc.) thereby providing much of the information needed by scientists and lecturers.

CHAPTER 20

## INTERNATIONAL COOPERATION IN HIGHER EDUCATION

The extensive and multiform cooperation which takes place between Bulgarian higher education institutions and institutions in other countries is an essential element in the efforts being made to raise the effectiveness and the quality of work done in Bulgarian institutions.

Cooperation in science and technology is aimed at studying the experiences of other countries in the training of specialists. It takes the form of collective promotion of research work and of study of the best and most useful achievements and models of technical progress. The joint employment of scientists for the training of lecturers and other specialists (at the 'Candidate of Science' or 'Doctor of Science' levels) is an important and rapidly developing aspect of this cooperation. Also, participation in international congresses, conferences, symposia, etc. in jointly operated courses for the training of young research workers has a most favourable effect on the advancement of all such activities in Bulgarian institutions.

International cooperation is also demonstrated in the training of university students abroad, primarily in specialities not existing or well represented in Bulgaria. There were 3.376 Bulgarian university students attending foreign educational institutions in 1979-1980, i.e. 4 per cent of all regular students. This statistic proves that the exchange is balanced (a certain idea of this exchange can be gained from Table 16).

One particularly promising trend in the area of international cooperation is the joint sponsoring of research projects on subjects of common interest. During the 1975-1980 period, Bulgarian universities worked with foreign partners on a bilateral or multilateral basis, on a total of 292 problems.

It is not possible to present a comprehensive characterization, be it quantitatively or qualitatively, of the international contacts of Bulgarian higher education. They are being realized on a rather open basis, most appropriate use being made of the personal initiative of university teachers and of the possibilities offered by the respective chairs and faculties, of the specialized research teams, of the youth organizations, and of the trade unions. Of course, the bulk of the exchanges taking place result from official ties among institutions and from inter-state contacts.

An important way by which international contacts are maintained is by sending Bulgarian university teachers to the higher education institutions of developing countries. Scores of specialists, mainly from engineering, agricultural and medical higher education institutions are engaged in propagating their specializations as well as the experience of Bulgarian higher education, of economic management and of Bulgarian culture to more than 20 countries in Asia and Africa. These contacts, based on international agreements or through arrangements made by UNESCO, constitute remarkable opportunities for the exchange of experience and for rendering assistance to those countries.

Bulgarian higher education is becoming throughly integrated into the international academic milieu through its international contacts. It is an active member of a number of associations of universities and of higher education institutions.



82

CHAPTER 21

## FUTURE PROSPECTS AND REFORM OF HIGHER EDUCATION

The Plenary Session of July 1979 of the Central Committee of the Bulgarian Communist Party which was specially dedicated to the problems of education, as well as the First Congress of Education held in May 1980, set new tasks for Bulgarian higher education as well as for all other education stages and types of education institutions in the country.

A profound reconstruction of higher education is now under way, the result of the impact of the scientific and political formulations of these two political and creative forums. The nature of the quantitative and qualitative changes under way are affecting the comprehensive educational activities of the country, the structure of social functions, the content and the character of higher education, the educational process, the system of horizontal and vertical ties between higher education and the comprehensive system of postgraduate training, the formation and completion of the material and technical structure of education, and the research work carried out in higher education.

21. 1. The decision to proceed with a profound reconstruction of higher education is not merely a fine idea, not simply a matter of being dissatisfied with what has been achieved. It reflects no crises in the educational system or in the country's socio-economic development. Rather, the objectives of this reconstruction are the result of a thorough analysis of the existing situation ( indisputable achievements along with deficiencies that remain to be overcome) in the country and in the sphere of education, of the clear-cut trends in the development of higher education in the world.

21. 2. The rapid, plan-based industrialization of Bulgaria, which began around the middle of the 1950's after the April 1956 Plenary Session of the Central Committee of the Bulgarian Communist Party has been com-

pleted along general lines traced at that time. The process of the extensive development of industry has been completed. As can be seen from Table 5, the index of industrial development is among the highest in the world. Bulgaria has now embarked on a period of intense industrial development under the slogan of efficiency and quality and with the aim of introducing the latest innovations of science and technology.

21. 3. The structure and pattern of agriculture has changed completely. Organized in enormous social and economic units which have developed through the gradual formation of cooperative and collective units from the parcelled-out family holdings, Bulgarian agriculture has achieved top ratings in terms of the principal indicators of agricultural success. The Bulgarian village holds one of the leading places in the world in the per capita production of the basic agricultural goods.

21. 4. The country's infrastructure and the system of social services has also evolved. Bulgaria now has a modern network of rail, road and air communications. The country is covered by a unified power grid and a national telephone, telegraph and telex system. Modern medical services are available free to the entire population.

21. 5. The comprehensive socio-economic development of Bulgaria poses certain problems to all specialists but particularly to higher education planners. The period of extensive development characterized by the simple transfer of technology obtained abroad and the adoption of foreign practices has ended. The character of the economy (over 85 per cent of the national income has a bearing on the country's foreign trade relations) places it in a state of competition with, and of constant and strong dependence on, changing world conditions and on the current rapid progress of science and technology. Therefore Bulgarian higher education is faced by the task of training specialists who will be able to adapt, transfer, accommodate and develop in constructive ways the best achievements of scientific and technical progress.

The level of general culture, of scientific knowledge, of education – particularly in the case of the younger generations – and the mode of life of the population are radically different from what used to be typical of Bulgaria in 1939 or in 1956. Even the situation in 1969, the year in which were initiated the reforms in education which led to the present standards of general and higher education, was in many respects radically different from the situation today.

Relevant numerical data are indisputable. Let us take, as a basis of comparison, the year 1965, which marked the beginning of the first systematic and target-oriented investigations connected with the reform of education.

In 1965 our country numbered some 888.000 people with secondary education; today there are about 2 million. In 1965 there were 157.000 citizens with higher education; there are now over 350.000. Today 9 out of 10 children are being raised in families in which at least one of the parents has completed secondary education. Every ninth child today is growing up in a family where at least one of the parents has a higher education degree.

These essentially new conditions with regards to the educational level of families have given rise to a new situation in schools and hence in universities. The level of assimilated knowledge of the entire society, directly materialized or reflected in the intellectual and educational level of the population is much higher today than before. This situation makes it possible for higher education to advance in a more favourable environment.

Bulgarian culture has developed at remarkable rates, particularly during the last decade.

The humanistic foundations of Bulgarian socialist culture are conducive to the popularization and reaffirmation of beauty – not as a museum exhibit, and not merely as a principle, but first and foremost as an everyday experience, as the beauty of man's ordinary life, as a beauty which is the tool for man's advancement.

One glance at Bulgarian science will convince us that the kernels of knowledge and of scientific creativity that the Bulgarian people have carried with them since the creation of their state 13 centuries ago are blossoming today into an advanced system of hundreds of scientific organizations serving industry and the public services, of powerful higher education institutions in which student training, scientific information and research make up an integrated whole, and of many academic institutions which are engaged in fundamental investigations.

Consequently, there are opportunities for a still more efficient application of knowledge and of the skills mastered by students. Hence the origin of new tasks and objectives.

The development of higher education which began along the lines indicated by the decisions of the Plenary Session of the Bulgarian Communist Party of July 1979, is giving a qualitatively new level to all the basic elements of which it is composed.

21. 6. Reform of higher education while proceeding to the realization of profound changes in the realm of higher education, the relevant state and public organs and the entire body of lecturers and students in the country have the following basic initial prerequisites in mind:

a. The socio-economic development of Bulgaria will continue at approximately the same stable and comparatively high rates during the next 2 or 3 decades;

b. The structure of the economy will continue to improve still further, with the relative share of the tertiary sphere (services) growing at more rapid rates.

c. Labour productivity will increase at rates higher than heretofore.

d. The demographic foundations of higher education (and of education as a whole) will remain approximately the same as they are today;

e. Higher education will retain its attraction for the young generation

f. The international functions of Bulgarian higher education are to develop appreciably.

With these prerequisites in mind, the political principles related to higher education are rendered concrete in the documents prepared by the Government which will soon become the normative basis for the reform of higher education.

21. 7. The most important and basic principles underlying the reform of higher education are the following:

a. *Creativity*. The principal effort in the training of specialists must be directed not only toward the acquisition of knowledge, skills and habits, but toward the development of characteristics of creative thinking and action, and of creative or constructive attitudes toward the problems involved.

b. *Mobility*, i. e. the capacity to acquire new knowledge beyond that which has been learned during early university training, so as to attain creative self-education to avoid stagnation, and to combat routine.

c. *Professionalization*, i.e. the early attainment during undergraduate training of such a level of knowledge, skills, and habits as to ensure rapid entry into the activities of production. It implies success in overcoming the traditional gap between education and labour, between the educational institution and the production establishment, between the 'life of study' and the 'life of work'.

21. 8. A new approach to the horizontal structure of higher education is being adopted. The experience accumulated has shown that during the first 1 or 2 years of training the instructional content of similar specialties is essentially identical. In addition, it is known that young specialists have held jobs for many years that have been quite different from those for which they had been prepared.

Thus the horizontal structure of higher education has acquired the following outline:



86

21. 9. New contingents of university students will be admitted in accordance with general vocational categories and will be trained for 1 to 2 1/2 years in accordance with a unified curriculum.

21. 10. At the completion of a common programme, students will branch into specific fields of study – the basic structural units of Bulgarian higher education. The field of study conceived as a broad vocational specialty provides training for a relatively rapid preparation for undertaking the practical activities of specific kinds of specialists.

21. 11. *The specialization*, a structural unit coming after the end of specific training in the particular field of study, is envisaged as a kind of transition between the higher education institution and the future place of work. These specializations are a mobile element which provide possibilities for increasing the flexibility of specialist training plans along narrow profiles in accordance with the needs of industry, agriculture, administration, and culture.

21. 12. The problem of the vertical structure of higher education has been treated comprehensively and in detail in the 1979 Theses of the Central Committee of the Bulgarian Communist Party on the Development of Education in Bulgaria. According to these theses:

'THE FIRST STAGE of higher education shall ensure fundamental general-theoretical training in a particular vocational direction. It must involve the processes of the multilateral development of young people, the formation of critical attitudes, creative thinking, and a capacity for independent work all without implying narrow professionalization....

After the completion of the first stage, an assessment is made of the results obtained and of the propensities demonstrated. Then the students proceed to the next stage, drop out, or are re-oriented toward another type of educational institution.

'THE SECOND STAGE should train the student for a profession in the broad sense. The object of this stage of training is mastery of special theoretical, technological, structural, economic and managerial knowledge, as well as skills and methods.... The training must be linked to the active participation of the students in material production...

'Training during the first two degrees must proceed until it has ensured mobility and possibilities for multidirectional accomplishment.... on the part of the students. The preliminary distribution of the students and their assignment to concrete duties and workplaces must be undertaken after the completion of the second stage.

'IN THE THIRD STAGE it is necessary to ensure specialization in production proper or in research work.... The main task here is to link training

to practice, to make active use of the knowledge already acquired and at the same time, to acquire new special professional knowledge.... Particular attention must be paid to ensure flexibility in designing and updating the content of the specializations. The *Academic Councils* must be given the right to determine both the scope of the special knowledge required of the specialists and the concrete forms of their training.'

This three-stage structure has been applied throughout the entire higher education system.

21. 13. Within the context of the Reform the importance of the curriculum as the one and obligatory document organizing the activities of students and lecturers during the entire course of training has been preserved, but its parameters, its proportions and its dominant features are the object of qualitative changes.

Changes have first of all been envisaged in the basic parameters, namely, a certain extension of the academic semester or term and, accordingly, of the academic year, reduction of the workload envisaged in the weekly schedules to provide more time for independent training and preparation, and a relative decrease in the number of examinations and tests.

The proportions of the curriculum are likewise subject to essential changes: the relative share of fundamental training and of the practical exercises of the future specialists is to rise appreciably.

The basic and dominant characteristics of the curriculum are those activities which provide for the development and the testing of students' creative capacities. The assumption is that creativity is not something given as inborn property, but something which must be opened up, trained and stimulated.

What we have in mind is a personalization of the curriculum, one which is designed to take into account the characteristics of the individual students, their personal qualities.

Finally, reference is made to the gradual change in the character of the process of training and instruction. It goes without saying that the need to obtain a smooth transition from secondary school to higher education requires the initial continuation of many elements of secondary-school methods of work. The student will evolve from an instructional-scientific method of learning to a scientific-instructional one and finally to a scientific-creative process. During the last terms of the higher education training, the scientific-creative process is only another name for that process of labour in which the young specialist will participate immediately after the completion of his education when he takes up his first job.

21. 14. In our presentation we have dwelt only on the individual determinant aspects in the transformation of the higher education system.

In order to secure this transformation, in order to secure the materialization of its ideas, its new content, its new curriculum, and its new process of training, it is necessary to achieve an overall improvement affecting the research and educational staff, the material and technical structure, the system of management and financing, and the cultural and social environment of the students, teachers, and auxiliary personnel in the educational institutions.

**APPENDIX 1**

## LIST OF TABLES AND FIGURES


Table 1 – Total Population of Bulgaria 1979
Table 2 – Population of Bulgaria According to Stages of Education
Table 3 – Evolution of Student Enrolment Dur' g the 1939-1980 period
Table 4 – Development of Higher Education Institutions During the 1939-1980 period
Table 5 – Number of Research Workers and Teaching Personnel
Table 6 – Distribution of Education Institutions, Academic Staff and Students in 1971
Table 7 – Regular and Non-permanent Academic Staff (1980-1981)
Table 8 – Teacher – Undergraduate Students Ratio (1977-1978)
Table 9 – Age Composition of Research Workers and Faculty Members
Table 10– Students Admitted during 1979
Table 11 – Bulgarian Regular Students in the Country and Abroad
Table 12 – Scholarship Students
Table 13 – Foreign Students, 1980-1981
Table 14 – Structure of the Contingent of Foreign Students
Table 15 – Bulgarian Post-graduate Students Obtaining Candidate of Science (PhD) Degrees in Bulgaria and Abroad
Table 16 – Bulgarian Undergraduates Studying Abroad during the 1976-1980 Period (in per cent)

Figure 1 – The Educational System in Bulgaria in 1980
Figure 2 – General Diagram of the Management of the Educational System
Figure 3 – Block Diagram of the Administration of a Higher Education Institution
Figure 4 – New Structure of the Education System in Bulgaria

Table 1

Population on December 31, 1979, in age and sex

| Age (in years) | Total | | | In towns | | | In villages | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| Total | 8 846 417 | 4 409 149 | 4 437 268 | 5 467 336 | 2 724 674 | 2 742 661 | 3 379 082 | 1 684 475 | 1 694 607 |
| 0– 4 | 688 833 | 353 322 | 335 511 | 473 180 | 243 005 | 230 175 | 215 653 | 110 317 | 105 336 |
| 5– 9 | 651 367 | 334 922 | 316 445 | 409 032 | 209 781 | 199 251 | 242 335 | 125 141 | 117 194 |
| 10–14 | 619 481 | 318 533 | 300 948 | 373 001 | 190 955 | 182 046 | 246 480 | 127 578 | 118 902 |
| 15–19 | 625 476 | 321 152 | 304 324 | 479 392 | 244 630 | 234 762 | 146 084 | 76 522 | 69 562 |
| 20–24 | 633 894 | 323 959 | 309 935 | 467 399 | 229 692 | 237 707 | 166 495 | 94 267 | 72 228 |
| 25–29 | 658 954 | 331 186 | 327 768 | 461 354 | 228 796 | 232 558 | 197 600 | 102 390 | 95 210 |
| 30–34 | 658 817 | 330 885 | 327 932 | 457 670 | 228 300 | 229 370 | 201 147 | 102 585 | 98 562 |
| 35–39 | 556 624 | 279 196 | 277 428 | 365 715 | 183 555 | 182 160 | 190 909 | 95 641 | 95 268 |
| 40–44 | 562 807 | 280 570 | 282 237 | 358 740 | 178 219 | 180 521 | 204 067 | 102 351 | 101 716 |
| 45–49 | 629 153 | 314 894 | 314 259 | 380 830 | 190 842 | 189 988 | 248 323 | 124 052 | 124 271 |
| 50–54 | 613 461 | 309 388 | 308 073 | 352 448 | 178 763 | 173 685 | 261 013 | 126 625 | 134 388 |
| 55–59 | 578 994 | 281 885 | 297 009 | 300 030 | 149 565 | 150 465 | 278 864 | 132 320 | 146 544 |
| 60–64 | 328 231 | 157 518 | 170 713 | 155 215 | 75 399 | 79 816 | 173 016 | 82 119 | 90 897 |
| 65–69 | 397 918 | 190 082 | 207 836 | 170 311 | 80 713 | 89 598 | 227 607 | 109 369 | 118 238 |
| 70–74 | 310 541 | 143 785 | 166 756 | 126 206 | 57 137 | 69 069 | 184 335 | 86 648 | 97 687 |
| 75–79 | 198 440 | 86 662 | 111 778 | 80 289 | 33 357 | 46 932 | 118 151 | 53 305 | 64 846 |
| 80–84 | 87 243 | 37 418 | 49 825 | 36 594 | 14 678 | 21 916 | 50 649 | 22 740 | 27 909 |
| 85–89 | 31 174 | 12 415 | 18 759 | 13 398 | 5 066 | 8 332 | 17 776 | 7 349 | 10 427 |
| 90–94 | 11 095 | 4 018 | 7 077 | 4 757 | 1 668 | 3 089 | 6 338 | 2 350 | 3 988 |
| 95–99 | 2 918 | 1 060 | 1 858 | 1 240 | 416 | 824 | 1 678 | 644 | 1 034 |
| 100 and more | 1 096 | 299 | 797 | 534 | 137 | 397 | 562 | 162 | 400 |





BEST COPY AVAILABLE

Table 2

The population of Bulgaria according to stages of education*

| Date of census | Elementary | Primary | Secondary | Semi-higher | Higher |
|---|---|---|---|---|---|
| December 31, 1934 | 23,8 | 39,8 | 11,3 | 3,7 | 1,1 |
| December 31, 1946 | 17,6 | 40,0 | 22,2 | 6,1 | 1,4 |
| December 1, 1956 | 16,3 | 39,8 | 28,9 | 11,2 | 2,4 |
| December 2, 1975 | 27,6 | 37,5 | 23,9 | 12,4 | 5,7 |

Source: The Expanded Reproduction in Bulgaria, Sofia 1970, p. 112

* The percentage for a given educational stage is calculated in relation to the age at which the particular stage can be completed, namely: over 11 years for elementary education, over 14 years for primary, over 18 years for secondary and semi-higher education, and over 22 years for higher education.



92

Table 3

Evolution of student enrolments during the 1939-1980 period

| | 1939/40 | 1944/45 | 1952/53 | 1956/57 | 1960/61 | 1965/66 | 1970/71 | 1975/76 | 1978/79 | 1980/81 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 10.169 | 26.412 | 29.977 | 36.706 | 54.966 | 84.467 | 89.331 | 10.056 | 91.303 | 86.330 |
| In groups of specialties: | | | | | | | | | | |
| Engineering and technical | | 4.517 | 5.552 | 9.646 | 18.286 | 35.558 | 40.692 | 44.417 | 35.326 | 29.980 |
| Rural economy | 826 | 1.916 | 4.964 | 6.822 | 6.700 | 9.451 | 4.971 | 3.839 | 3.006 | 3.815 |
| Economics | 3.229 | 8.386 | 6.186 | 6.217 | 8.094 | 10.265 | 13.892 | 19.087 | 15.536 | 14.162 |
| Mathematics, natural and chemical sciences | 2.839 | 2.789 | 4.749 | 5.817 | 10.529 | 17.358 | 15.432 | 21.297 | 18.204 | 20.070 |
| Public health | 1.021 | 4.977 | 5.568 | 5.687 | 5.541 | 7.139 | 8.301 | 10.191 | 11.732 | 12.218 |
| Physical education | | 175 | 619 | 773 | 1.289 | 1.760 | 1.325 | 2.246 | 2.352 | 2.086 |
| The arts | 380 | 594 | 1.394 | 1.133 | 1.069 | 1.525 | 2.186 | 2.287 | 3.199 | 2.956 |
| Law | 1.874 | 3.068 | 966 | 611 | 1.457 | 1.424 | 2.592 | 1.992 | 1.344 | 981 |



93

Table 4

Development of higher education institutions during the 1939 - 1980 period

| | 1939/ 1940 | 1944/ 1945 | 1952/ 1953 | 1956/ 1957 | 1960/ 1961 | 1965/ 1966 | 1970/ 1971 | 1976/ 1977 | 1978/ 1979 | 1980/ 1981 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 5 | 7 | 13 | 20 | 26 | 29 | 27 | 27 | 28 | 28 |
| Faculties: | 9 | 9 | 33 | 32 | 33 | 42 | 48 | 68 | 73 | 73 |
| Engineering and technical | 1 | 1 | 8 | 7 | 10 | 15 | 17 | 24 | 26 | 26 |
| Agricultural | 2 | 2 | 8 | 4 | 4 | 4 | 5 | 2 | 2 | 2 |
| Economic | - | - | 5 | 8 | 6 | 6 | 6 | 9 | 9 | 9 |
| Medical | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 |
| The arts | - | 2 | 4 | 5 | 5 | 5 | 6 | 5 | 6 | 6 |
| Other faculties | 4 | 3 | 5 | 5 | 5 | 9 | 11 | 21 | 23 | 23 |



94

Table 5

Number of research workers and Teaching Personnel employed during the 1939-1980 period

| | 1939/40 | 1944/45 | 1952/53 | 1956/57 | 1960/61 | 1965/66 | 1970/71 | 1975/76 | 1978/79 | 1980/81 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 453 | 803 | 2.823 | 3.026 | 3.883 | 5.905 | 7.125 | 11.248 | 13.025 | 12.622 |
| Professors | 140 | – | 370 | 410 | 389 | 481 | 666 | 871 | 867 | 857 |
| Associate professors | 60 | – | 310 | 335 | 402 | 663 | 899 | 1.551 | 1.911 | 2.073 |
| Assistants | 177 | – | 1.361 | 1.331 | 2.068 | 3.246 | 3.705 | 5.727 | 7.131 | 6.616 |
| Lecturers | 76 | – | 792 | 950 | 1.034 | 1.505 | 1.795 | 3.099 | 3.096 | 3.076 |
| Permanent staff, total | 414 | – | – | 2.518 | 3.074 | 4.613 | 5.462 | 9.546 | 10.896 | 10.590 |
| Professors | 136 | – | – | 383 | 379 | 431 | 605 | 797 | 808 | 805 |
| Associate professors | 30 | – | – | 313 | 370 | 632 | 829 | 1.474 | 1.777 | 1.972 |
| Assistants | 177 | – | – | 1.166 | 1.594 | 2.486 | 2.814 | 2.722 | 5.742 | 5.828 |
| Lecturers | 71 | – | – | 656 | 731 | 1.065 | 1.204 | 2.553 | 2.369 | 1.985 |

Table 6

Distribution of education institutions, academic staff, and students in 1971

| | Educational | Lecturers | Students |
|---|---|---|---|
| Pre-school education | 6.406 | 28.477 | 418.882 |
| General-edication labour-polytechnical schools | 3.611 | 58.095 | 1.075.960 |
| Special schools for children with mental deficiencies or who are deaf and dumb, blind, or delinquent | 129 | 2.357 | 17.595 |
| Secondary vocational-technical education | 302 | 17.595 | 154.959 |
| Technical colleges and schools in the arts | 221 | 9.436 | 98.762 |
| Semi-higher education | 36 | 2.406 | 19.226 |
| Higher education | 28 | 12.503 | 87.494 |



96

Regular and non-Permanent Academic Staff (1980-1981) Table 7

| Educational institutions and location | Total | | According to academic degree | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Professors | | Associate Professors | | Assistants | | Lecturers[1] | |
| | Total | Only women | Total | Only women | Total | Only women | Total | Only women | Total | Only women |
| Total | 12.822 | 4.638 | 867 | 63 | 2.073 | 364 | 6.818 | 2.405 | 3.076 | 1.816 |
| Town of Sofia | 7.797 | 2.985 | 624 | 48 | 1.293 | 247 | 3.830 | 1.269 | 2.250 | 1.422 |
| Higher Institute of Mining and Geology | 258 | 48 | 36 | – | 77 | 11 | 106 | 26 | 37 | 11 |
| Higher Institute of Mechanical and Electrical Engineering | 1.240 | 212 | 81 | 1 | 263 | 21 | 840 | 134 | 256 | 56 |
| Higher Institute of Chemical Technology | 366 | 138 | 20 | 2 | 89 | 26 | 158 | 67 | 91 | 44 |
| Higher Institute of Architecture and Building | 804 | 114 | 76 | 3 | 99 | 10 | 102 | 78 | 47 | 23 |
| Higher Institute of Forestry | 175 | 34 | 21 | – | 46 | 7 | 77 | 17 | 31 | 10 |
| Higher Institute of Economics | 588 | 160 | 67 | 1 | 130 | 29 | 226 | 85 | 136 | 85 |
| University of Sofia | 1.378 | 557 | 98 | 9 | 244 | 80 | 534 | 251 | 500 | 237 |
| Medical Academy | 2.281 | 1.375 | 129 | 21 | 177 | 34 | 1.216 | 583 | 759 | 817 |
| Bulgarian State Conservatory | 533 | 143 | 45 | 8 | 49 | 21 | 34 | 16 | 205 | 118 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Higher Institute of Fine Arts | 140 | 26 | 24 | 1 | 20 | 6 | 22 | 7 | 58 | 12 |
| Higher Institute of Theatrical Art | 155 | 48 | 11 | 2 | 25 | 8 | 64 | 32 | 55 | 4 |
| Higher Institute of Physical Culture | 323 | 93 | 8 | – | 56 | 15 | 182 | 53 | 75 | 25 |
| Town of Blagoevgrad | 191 | 66 | 4 | – | 22 | 6 | 132 | 74 | 23 | 8 |
| Higher Pedagogical Institute | 191 | 66 | 4 | – | 22 | 6 | 132 | 74 | 23 | 8 |
| Town of Burgas | 194 | 57 | 3 | 1 | 25 | 4 | 85 | 34 | 41 | 18 |
| Higher Institute of Chemical Technology | 194 | 57 | 3 | 1 | 25 | 4 | 85 | 34 | 41 | 18 |
| Town of Varna | 1.071 | 281 | 23 | 1 | 175 | 20 | 633 | 233 | 185 | 91 |
| Higher Institute of National Economy | 244 | 80 | 10 | – | 55 | 8 | 115 | 44 | 69 | 28 |
| Higher Institute of Mechanical and Electrical Engineering | 409 | 93 | 3 | – | 74 | 4 | 201 | 70 | 41 | 19 |
| Higher Medical Institute | 416 | 176 | 12 | 1 | 51 | 8 | 277 | 125 | 78 | 44 |
| Town of Veliko Turnovo | 286 | 111 | 12 | 2 | 36 | 8 | 142 | 72 | 75 | 29 |
| University of Veliko Turnovo | 286 | 111 | 12 | 2 | 36 | 8 | 142 | 72 | 75 | 29 |
| Town of Sofiisko | 163 | 41 | 12 | – | 34 | 6 | 104 | 25 | 33 | 10 |
| Higher Institute of Finance and Economics | 163 | 41 | 12 | – | 34 | 6 | 104 | 25 | 33 | 10 |
| Town of Gabrovo | 256 | 39 | 2 | – | 24 | 2 | 146 | 28 | 36 | 9 |
| Higher Institute of Mechanical and Electrical Engineering | 256 | 39 | 2 | – | 24 | 2 | 146 | 28 | 36 | 9 |
| Town of Pazardzhik | 70 | 29 | 2 | – | 16 | 1 | 51 | 27 | 1 | 1 |
| Medical Faculty – Branch of the Higher Medical In- | | | | | | | | | | |



BEST COPY AVAILABLE

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Town of Pleven | 229 | 111 | 10 | 1 | 26 | 3 | 163 | 100 | 10 | 7 |
| Higher Medical Institute | 229 | 111 | 10 | 1 | 26 | 3 | 163 | 100 | 10 | 7 |
| Town of Plovdiv | 1.532 | 543 | 97 | 6 | 274 | 42 | 831 | 361 | 280 | 134 |
| Higher Institute of Food and Allied Industries | 263 | 75 | 15 | 2 | 69 | 6 | 142 | 51 | 37 | 16 |
| Higher Agricultural Institute | 259 | 77 | 52 | 4 | 75 | 17 | 90 | 36 | 42 | 20 |
| Plovdiv University | 307 | 123 | 6 | – | 54 | 8 | 224 | 116 | 23 | 9 |
| Higher Medical Institute | 546 | 183 | 22 | – | 63 | 6 | 393 | 152 | 68 | 23 |
| Higher Musical-Pedagogical Institute | 157 | 86 | 2 | – | 13 | 3 | 32 | 16 | 110 | 66 |
| Town of Ruse | 460 | 131 | 6 | – | 78 | 7 | 295 | 67 | 81 | 57 |
| Higher Institute of Machinebuilding, Mechanization and Electrification of Agriculture | 460 | 131 | 6 | – | 78 | 7 | 295 | 67 | 81 | 57 |
| Town of Stara Zagora | 233 | 46 | 55 | 3 | 52 | 5 | 100 | 21 | 26 | 17 |
| Higher Institute of Zootechnics and Veterinary Medicine | 233 | 46 | 55 | 3 | 52 | 5 | 100 | 21 | 26 | 17 |
| Town of Tolbouhin | 60 | 21 | – | – | 10 | 1 | 49 | 20 | 1 | – |
| Medical Faculty – Branch of the Higher Medical Institute of Varna | 60 | 21 | – | – | 10 | 1 | 49 | 20 | 1 | – |
| Town of Shoumen | 179 | 84 | 5 | 1 | 8 | 2 | 135 | 68 | 31 | 13 |
| Higher Pedagogical Institute | 179 | 84 | 5 | 1 | 8 | 2 | 135 | 68 | 31 | 13 |

[1]Including research associates who are engaged as lecturers as well.



BEST COPY AVAILABLE

Teacher - Undergraduate students ratio (1977-1978) Table 8

| Higher educational institution | Number of undergraduates per lecturer | Number of undergraduates per professor |
|---|---|---|
| 1. Blagoevgrad - Higher Pedagogical Institute | 13,9 | 71,4 |
| 2. Burgas - Higher Institute of Chemical Technology | 9,4 | 75,3 |
| 3. Varna - Higher Institute ot National Economy | 26,0 | 106,4 |
| 4. - Higher Institute of Mechanical and Electrical Engineering | 11,6 | 83,5 |
| 5. - Medical Faculty | 4,5 | 29,5 |
| 6. University of Veliko Turnovo | 15,5 | 109,4 |
| 7. Town of Svishtov - Higher Instute of Finance and Economics | 23,6 | 109,1 |
| 8. Gabrovo - Higher Institute of Mechanical and Electrical Engineering | 13,0 | 131,5 |
| 9. Pleven - Medical Faculty | 5,9 | 39,7 |
| 10. Plovdiv - Higher Institute of the Food and Allied Industries | 10,5 | 40,7 |
| 11. - Higher Agricultural Institute | 8,1 | 17,4 |
| 12. University of Plovdiv | 14,2 | 82,5 |
| 13. - Higher Medical Institute - Branch | 4,6 | 34,5 |
| 14. - Higher Musical-Pedagogical Institute | 15,6 | 109,1 |
| 15. Ruse - Higher Institute of Machinebuilding, Machinization, and Electrification of agriculture | 10,8 | 66,5 |
| 16. Sofia - Higher Institute of Mining and Geology | 9,1 | 20,4 |
| 17. - Higher Institute of Mechanical and Electrical Engineering | 10,9 | 38,7 |
| 18. - Higher Institute of Chemical Technology | 7,4 | 27,9 |
| 19. - Higher Institute of Architecture and Building | 13,0 | 40,2 |
| 20. - Higher Institute of Forestry | 10,9 | 26,4 |
| 21. Agricultural Academy | 4,5 | 7,4 |
| 22. Higher Institute of Economics | 19,1 | 60,5 |
| 23. University of Sofia | 11,9 | 34,8 |
| 24. Medical Academy | 2,6 | 18,7 |
| 25. Bulgarian State Conservatory | 5,2 | 11,1 |
| 26. Higher Institute of Visual Arts | 7,1 | 14,5 |
| 27. Higher Institute of Theatrical Art | 8,0 | 20,3 |
| 28. Higher Institute of Physical Culture | 11,4 | 50,1 |
| 29. Higher Institute of Zootechnics and Veterinary Medicine | 6,8 | 10,2 |
| 30. Stara Zagora - Higher Institute of Zootechnics and Veterinary Medicine | 7,2 | 13,6 |
| 31. Shoumen - Higher Pedagogical Institute | 18,2 | 169,0 |

Source: calculations from data obtained from the bulletin "Higher and Semi-Higher Education".



101

100

## TABLES

Table 9

Age composition of research workers and faculty members

| | 1969 | | 1975 | |
|---|---|---|---|---|
| | Number | Average age | Number | Average age |
| Total | 5.322 | 40,27 | 7.482 | 40,39 |
| Professors | 532 | 54,84 | 638 | 55,18 |
| Associate professors | 790 | 45,24 | 1.360 | 46,77 |
| Lecturers | 996 | 40,79 | 975 | 42,12 |
| Assistants | 3.004 | 36,22 | 4.509 | 36,00 |

Table 10

Students admitted during 1979

| | Number of candidates | Per cent of total number | No. Admitted | Per cent of total number | Number of candidates for 1 place |
|---|---|---|---|---|---|
| Universities and pedagogical institutions | 18.963 | 32,77 | 2.897 | 23,67 | 6,5 |
| Technical | 8.529 | 14,74 | 2.560 | 20,91 | 3,3 |
| Building, mining, forestry | 4.029 | 6,96 | 981 | 8,01 | 4,1 |
| Chemical | 3.211 | 5,55 | 628 | 5,13 | 5,1 |
| Economics | 7.817 | 13,51 | 1.726 | 14,10 | 4,5 |
| Medical | 6.162 | 10,65 | 1.985 | 16,22 | 3,1 |
| Agricultural | 2.770 | 4,79 | 618 | 5,05 | 4,5 |
| Sports | 2.502 | 4,32 | 285 | 2,33 | 8,8 |
| The arts | 3.886 | 6,71 | 561 | 4,58 | 6,9 |
| Total: | 57.869 | 100,00 | 12.241 | 100,00 | 4,7 |

Note: The data on candidates in 1979 do not include foreign students or male candidates who had been admitted prior to that year.



101

Table 11

Bulgarian regular students in the country and abroad, according to different social groups

| Social groups | 1952/53 | % | 1956/57 | % | 1960/71 | % | 1970/71 | % | 1974/75 | % | 1977/78 | % | 1978/79 | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 26.411 | 100,0 | 31.207 | 100,0 | 39.243 | 100,0 | 65.497 | 100,0 | 75.817 | 100,0 | 69.130 | 100,0 | 69.233 | 100,0 |
| Workers | 5.631 | 31,3 | 6.933 | 22,2 | 11.000 | 28,0 | 22.864 | 34,9 | 15.907 | 34,2 | 23.624 | 34,2 | 23.517 | 34,0 |
| Office employees | 10.233 | 38,7 | 12.418 | 39,8 | 14.269 | 24,4 | 33.973 | 51,9 | 43.256 | 57,0 | 42.216 | 61,0 | 42.336 | 61,2 |
| Cooperative craftsmen (1) | 500 | 2,0 | 677 | 2,1 | 702 | 1,8 | 292 | 0,4 | 40 | 0,1 | – | – | – | – |
| Cooperative farmers | 2.112 | 8,0 | 7.370 | 23,6 | 12.243 | 31,2 | 7.652 | 11,7 | 6.231 | 8,2 (2) | – | – | – | – |
| Private craftsmen (1) | 1.219 | 4,6 | 874 | 2,8 | 258 | 0,6 | 33 | 0,1 | 4 | – | – | – | – | – |
| Private farmers (1) | 6.089 | 23,1 | 2.460 | 7,9 | 311 | 0,8 | 195 | 0,3 | 82 | 0,1 | – | – | – | – |
| Other groups | 607 | 2,3 | 485 | 1,6 | 460 | 1,2 | 488 | 0,7 | 299 | 0,4 | 3.290 | 4,8 | 3.326 | 4,8 |

(1) After the 1976/77 academic year they are included in the category of 'other groups'.

(2) After the year 1977/78 they are included in the categories of 'workers' of 'office employees'.

Table 12

Scholarship students[1]

| | 1939/40 | 1948/49 | 1952/53 | 1960/61 | 1970/71 | 1974/75 | 1977/78 | 1978/89 | 1980/81 |
|---|---|---|---|---|---|---|---|---|---|
| Scholarship students | 303 | 1.833 | 12.038 | 14.354 | 19.797 | 20.386 | 31.981 | 30.291 | 34.217 |
| Relative share of the overall number of regular students, per cent | 3 | 5 | 43 | 36 | 31 | 28 | 48 | 46 | 56 |

[1] After the 1970/71 academic year the figures do not include foreign scholarship students

Table 13

Foreign students - undergraduates and graduates
for the 1980-1981 academic year
( in groups of specialties)

| Groups of specialties | Undergraduates | | Graduates |
|---|---|---|---|
| | Total | Newly admitted | |
| Total | 3,988 | 1,253 | 306 |
| Engineering and technical | 1,220 | 350 | 126 |
| Geology ans survey | 26 | 4 | 6 |
| Opening and exploitation of mines, etc. | 13 | 5 | - |
| Power industry | 90 | 33 | 8 |
| Metallurgy | 25 | 7 | - |
| Machinebuilding and instrument-building | 219 | 60 | 13 |
| Building electrical machines and instruments | 255 | 91 | 15 |
| Chemical technology | 93 | 16 | 5 |
| Food, tabacco, beverages, etc. industries | 132 | 26 | 41 |
| Forestry and wood working industries | 7 | 1 | 2 |
| Wood working, cellulose and paper industries | 3 | - | - |
| Textile, fur, leather and footwear industries | 19 | 5 | 3 |
| Construction | 338 | 102 | 33 |
| Rural economy | 407 | 87 | 52 |
| Economics | 621 | 177 | 38 |
| Mathematics, natural and humanitarian sciences | 435 | 127 | - |
| Mathematics and physics | 9 | 3 | - |
| Natural sciences | 90 | 17 | - |
| Humanitarian sciences | 336 | 107 | - |
| Public health | 1,147 | 449 | 83 |
| Physical education | 67 | 30 | 1 |
| The arts | 63 | 25 | 6 |
| Visual arts | 27 | 11 | 2 |
| Music | 16 | 6 | 4 |
| Theatrical art | 20 | 8 | - |
| Law | 28 | 8 | - |



104

Table 14

Structure of the contingent of foreign students
in Bulgaria during the 1976-1980 period (in per cent)

| Year | Total | Specialties | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Engineering and | Agriculture | Economics | University | Public Health | Physical education | Arts |
| 1976 | 100,0 | 33,5 | 14,0 | 8,8 | 11,6 | 28,1 | 0,7 | 3,3 |
| 1980 | 100,0 | 33,4 | 12,0 | 13,8 | 12,6 | 25,9 | 1,1 | 1,4 |

Table 15

Bulgarian post-graduate students obtaining Candidate of Science (PhD) degrees in Bulgaria and abroad

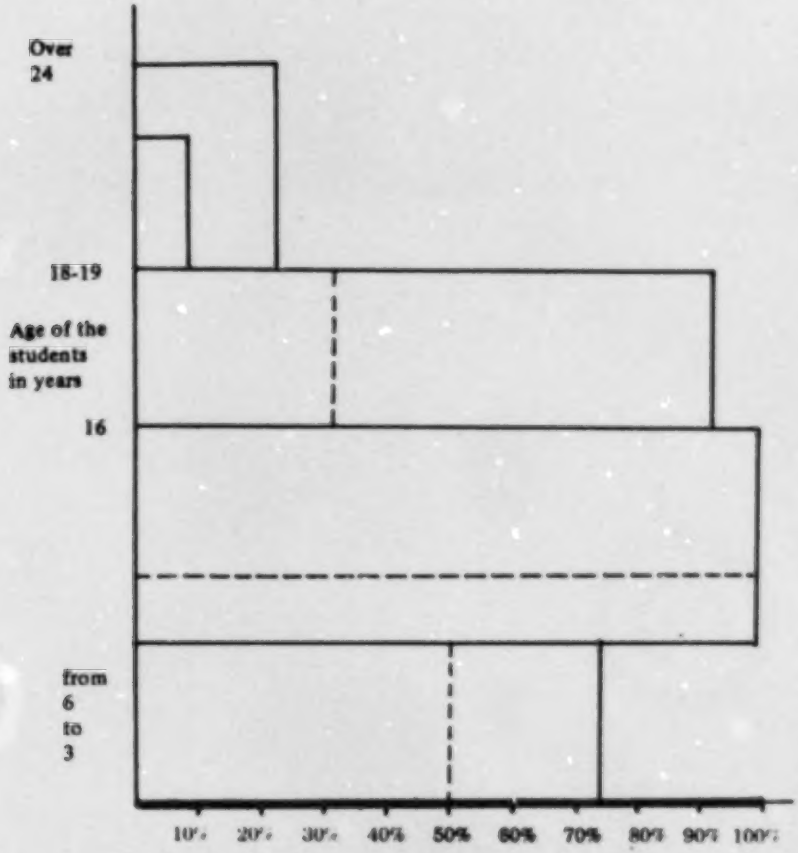
| | 1948 | 1952 | 1956 | 1960 | 1965 | 1970 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Undergoing Training | 13 | 203 | 1.241 | 729 | 1.738 | 2.777 | 3.826 | 3.854 | 3.867 | 3.848 | 3.606 | 3.142 | 2.648 | 2.223 |
| Number of trainees who do not interrupt their normal work | – | 170 | 999 | 582 | 1.174 | 2.017 | 2.778 | 2.780 | 2.420 | 2.352 | 2.168 | 1.788 | 1.471 | 1.224 |
| Number of defended dissertations | – | | 86 | 110 | 194 | 371 | 431 | 546 | 375 | 367 | 311 | 296 | 254 | 225 |
| By trainees who do not interrupt their normal work | – | 2 | 21 | 74 | 122 | 269 | 304 | 414 | 208 | 233 | 151 | 119 | 118 | 97 |

Table 16

**BULGARIAN UNDERGRADUATES STUDYING ABROAD DURING THE 1976-1980 PERIOD (in per cent)**

| Year | Total | Engineering and technical | Agriculture | Economics | Natural sciences | Public health | Physical culture | Arts | Law |
|---|---|---|---|---|---|---|---|---|---|
| 1976 | 100,0 | 49,0 | 0,2 | 21,9 | 15,5 | 3,0 | 0,2 | 4,8 | 5,3 |
| 1980 | 100,0 | 50,7 | 0,5 | 24,9 | 14,3 | 4,3 | 0,6 | 4,1 | 0,8 |
| increase in per cent compared to 1976 | +12,6 | +15,9 | +133,3 | +27,4 | +1,6 | +59,7 | +211,1 | -4,4 | -455,2 |

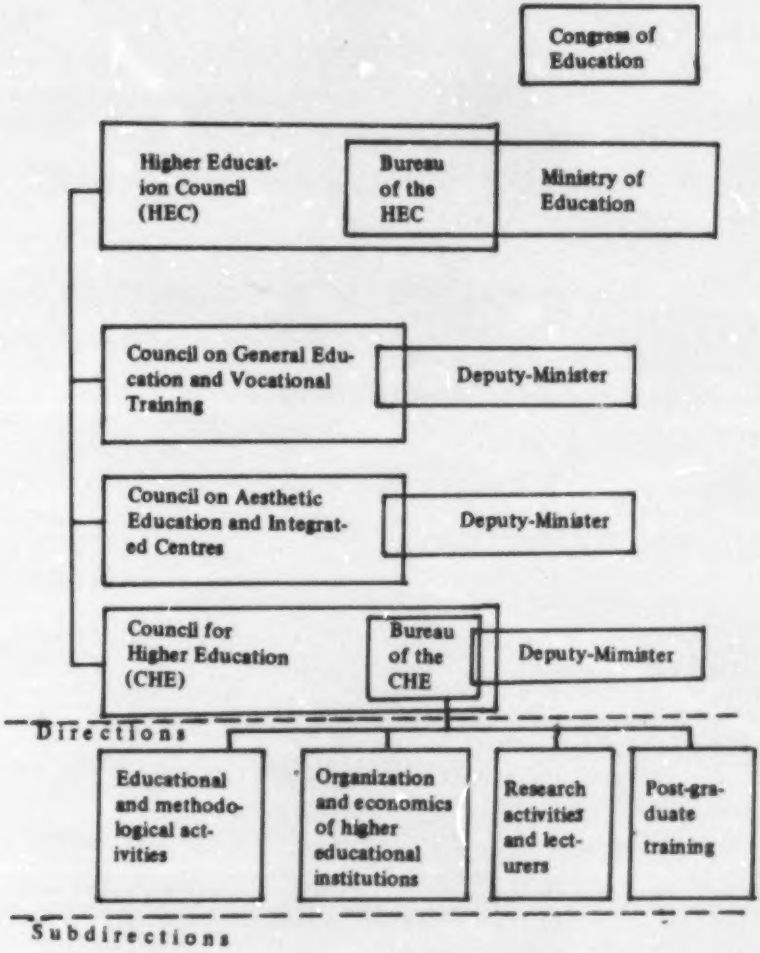
Fig. 1. THE EDUCATIONAL SYSTEM IN BULGARIA IN 1980




Involvement of students, in age-groups (in per cent)

1. Pre-school training – 76 per cent (53 per cent in day kindergartens and 23 per cent in half-day and other kindergartens.
2. Obligatory (primary) education – 100 per cent (1st to 8th grades)
3. Secondary education – 95 per cent of the graduates from the primary schools (28 per cent of them are in the general-education labour-polytechnical schools and 72 per cent are in vocational training.
4. Higher and incomplete higher education – 22 per cent of the graduates from the secondary schools: higher education (4-6 yrs) – 15 per cent and incomplete higher education (3 years) – 7 per cent.

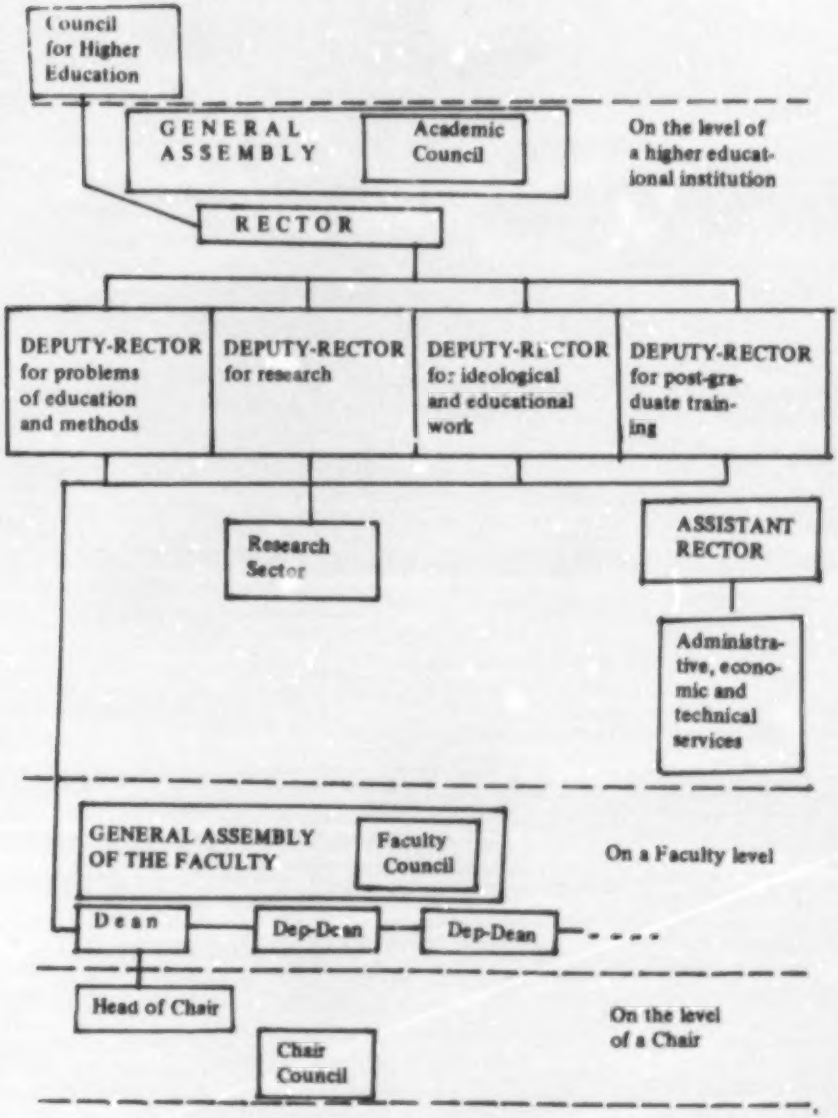
Fig. 2.GENERAL DIAGRAM OF THE MANAGEMENT OF THE EDUCATIONAL SYSTEM






109

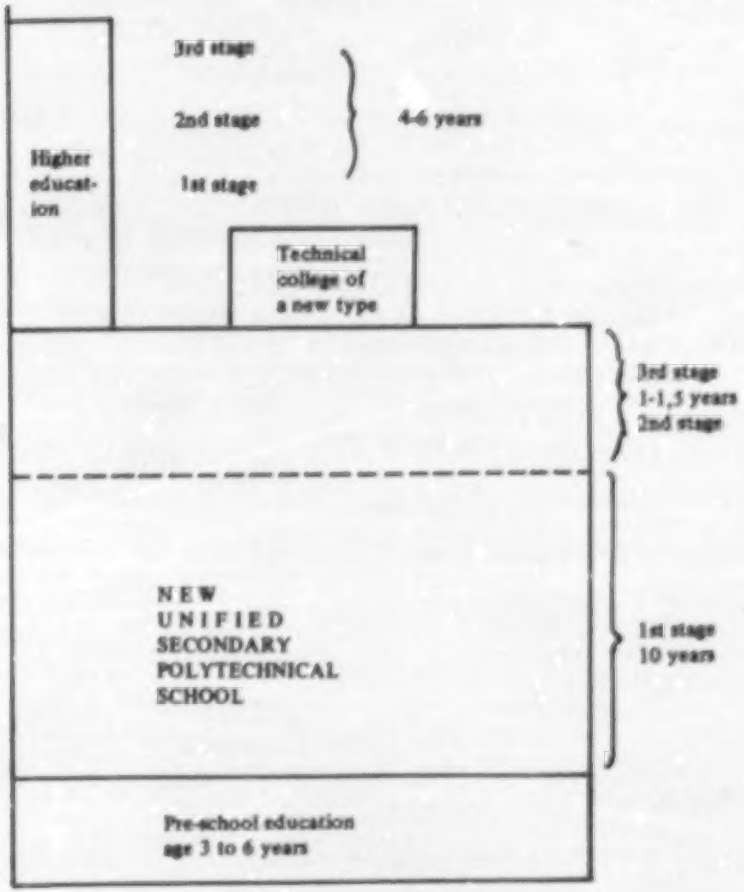
Fig. 3: BLOCK DIAGRAM OF THE ADMINISTRATION OF A HIGHER EDUCATION INSTITUTION






110

Fig. 4: NEW STRUCTURE OF THE EDUCATION SYSTEM IN BULGARIA



**APPENDIX 2**

## ADDRESSES OF HIGHER EDUCATION INSTITUTIONS IN BULGARIA

I. Universities:

1. The Kliment of Ohrid Sofia University
   15, Rouski Blvd.,
   1000 Sofia, Bulgaria
2. Higher Pedagogical Institute, 16 Maritza Str.
   2700 Blagoevgrad, Bulgaria
3. The Paisty of Hilendar Plovdiv University
   25, Tsar Assen Street,
   4000 Plovdiv, Bulgaria
4. The Cyril and Methodius Veliko Turnovo University
   2, Teodosiy Turnovski Street,
   5000 Veliko Turnovo, Bulgaria
5. Higher Pedagogical Institute
   9700 Shoumen, Bulgaria

II. Higher education institutions in technology

1. The V. I. Lenin Higher Institute of Mechanical and Electrical Engineering
   Durvenitsa Quarter
   1156 Sofia, Bulgaria
2. Higher Institute of Technical and Electrical Engineering
   Levski Quarter, Studentska Str.
   9010 Varna, Bulgaria
3. Higher Institute of Mechanical and Electrical Engineering
   4, Hadzhi Dimiter Street
   5300 Gabrovo, Bulgaria
4. Higher School of Technology "Anghel Kunchev"
   8, Komsomolska Street
   Ruse, Bulgaria
5. Higher Institute of Architecture and Building
   1, Smirnenski Blvd.,
6. Higher Institute of Mining and Geology
   Durvenitsa Quarter,
   1156 Sofia, Bulgaria
7. Higher Institute of Forestry
   10, Kliment of Ohrid Blvd.
   Durvenitsa Quarter
   Sofia, Bulgaria
8. Higher Institute of Chemical Technology
   Durvenitsa Quarter
   1156 Sofia, Bulgaria



112

9. The Professor Assen Zlatarov Higher Institute of Chemical Technology
   Slaveykov Quarter
   8010 Burgas, Bulgaria
10. Higher Institute of the Food, Tobacco and Beverages Industries
    26, V. I. Lenin Blvd.,
    Plovdiv, Bulgaria

III. Higher Institutions in Economics

1. The Karl Marx Higher Institute of Economics
   Durvenitsa Quarter
   The Hristo Botev Students Town
   Sofia, Bulgaria
2. The Dimiter Blagoev Higher Institute of National Economy
   77, Lenin Blvd.,
   9000 Varna, Bulgaria
3. The D. A. Tsenov Higher Institute of Finance and Economics
   2, Emanouil Chakurov Street
   Svishtov, Bulgaria

IV. Medical Academy

   15, D. Nestorov Street
   Sofia, Bulgaria
1. Higher Institute of Medicine
   1, G. Sofiyski Street
   Sofia, Bulgaria
2. Higher Institute of Medicine
   4000 Plovdiv, Bulgaria
3. Higher Institute of Medicine
   55, Marin Drinov Street
   9000 Varna, Bulgaria
4. Higher Institute of Medicine
   1, Karl Marx Street
   Pleven, Bulgaria

V. Higher Education Institutions in Agriculture

1. The Vassil Kolarov Higher Institute of Agriculture
   15, Mendeleev Street
   4000 Plovdiv, Bulgaria
2. Higher Institute in Zootechnics and Veterinary Medicine
   62, D. Blagoev Street
   Stara Zagora, Bulgaria



113

VI. Higher Schools of Sports

1. The G. Dimitrov Higher Institute for Physical Culture
   1, Tina Kirkova Street
   1000 Sofia, Bulgaria

VII. The Arts

1. The Krustyu Sarafov Higher Institute for Theatrical Art
   136, Rakovski Street
   1000 Sofia, Bulgaria
2. Bulgarian State Conservatory
   11, Klement Gottwald Blvd.,
   Sofia, Bulgaria
3. The Nikolay Pavlovich Higher Institute for Visual Arts
   1, Shipka Street
   Sofia, Bulgaria
4. Higher Musical-Pedagogical Institute
   2, T. Samodoumov Street
   4000 Plovdiv, Bulgaria
5. The G. A. Nasser Institute for Foreign Students
   27, Assen Velchev Street
   1111 Sofia, Bulgaria

PRINTING HOUSE OF THE MINISTRY OF EDUCATION
OF BULGARIA

Sofia, Bulgaria

111
115

# OTHER CEPES PUBLICATIONS

NEW FORMS OF HIGHER EDUCATION IN EUROPE
(Report on a symposium organized at CEPES from 13–15 January 1976. Articles are written in English, French or Russian).
Bucharest, 1976, Bibliogr.,185 p.

THE CONTRIBUTION OF HIGHER EDUCATION IN EUROPE TO THE DEVELOPMENT OF CHANGING SOCIETIES
(Report on a symposium organized at CEPES from 21–23 Sept. 1976. Articles are written in Englich, French or Russian).
Bucharest, 1977, Bibliogr., 179 p. (Out of print)

STATISTICAL STUDY ON HIGHER EDUCATION IN EUROPE 1970–1975
(In Englich and in French) Bucharest, 1978, 192 p.
(Out of print. New updated edition under preparation).

CONSULTATION FOR THE PREPARATION OF A STUDY ON ACCESS TO HIGHER EDUCATION IN EUROPE
(Report on a symposium organized at CEPES from 18-20 October 1977. Articles are written in English, French or Russian).
Bucharest, 1978, Bibliogr., 191 p.

ACCESS TO HIGHER EDUCATION IN EUROPE
Bucharest, 1981, 90 p. (also available in French and Russian)
ISBN 92-3-101942-2

INTERUNIVERSITY CO-OPERATION IN THE EUROPE REGION
Bucharest, 1981, 80 p. (also available in French and Russian)
ISBN 92-3-101941-4

L'ENSEIGNEMENT SUPERIEUR EN ROUMANIE
Bucharest, 1978, 105 p. (in French only)

DIRECTORY OF HIGHER EDUCATION RESEARCH INSTITUTIONS
prepared by CEPES, Bucharest. Published by IBE, Geneva, 1981, 139 p. Index

DISTANCE EDUCATION FOR THE UP-DATING OF KNOWLEDGE AT POST-GRADUATE LEVEL
Report on a symposium organized by CEPES. (Articles are written in English or French).
Bucharest, 1982, Bibliogr., 113 p.

HIGHER EDUCATION AND MANPOWER PLANNING
A comparative study of planned and market economies
(O. Fulton, A. Gordon, G. Williams ed.)
A joint project undertaken by the ILO and Unesco Centre for Higher Education (CEPES)
Published by ILO, Geneva,1982, Bibliogr., 127 p.
ISBN 92-2-102973-5

INTERDISCIPLINARITY IN HIGHER EDUCATION
A study established by Thor Einar Hanish following a symposium organized by the European Centre for Higher Education in Bucharest, 24–26 November 1982.
Bucharest, 1983, Bibliogr., 107 p.

To obtain these publications please write to:

European Centre for
Higher Education
39 Stirbei Voda
Bucharest, Romania

# MONOGRAPHS ON HIGHER EDUCATION

1. L'enseignement superieur en Suisse (French, 1981)
2. Higher Education in the United States (1982)
3. Higher Education in Norway (1983)
4. Higher Education in Bulgaria (1983)
5. Higher Education in the German Democratic Republic (1983)
6. Higher Education in the Byelorussian SSR (1983)

ISBN 92-3-102185-0